

Prepp

Your Personal Exams Guide



NDA



CDS



SSC CGL



CBSE UGC NET



IAS



SSC CHSL



CTET



MPSC



AFCAT



CSIR UDC NET



IBPS PO



UP POLICE



SSC MTS



SBI PO



BPS



UPTET



IBPS RRB



IBPS CLERK



IES



UPSC CAPF



SSC Stenogr..



RRB NTPC



SSC GD



RBI GRADE B



RBI Assistant



DSSSB

SSC MTS Previous Year Paper (Held on: 20 July 2022 Shift 3)

Total Time: 1 Hour : 30 Minute

Total Marks: 100

Instructions

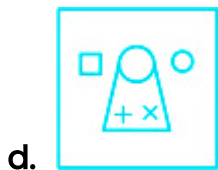
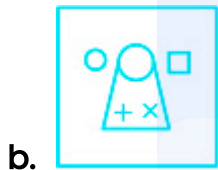
Sl No.	Section Name	No. of Question	Maximum Marks	Negative Marks	Positive Marks
1	General Intelligence & Reasoning	25	25	0.25	1
2	Numerical Aptitude	25	25	0.25	1
3	General English	25	25	0.25	1
4	General Awareness	25	25	0.25	1

- 1.) A total of 90 minutes is allotted for the examination.
- 2.) The server will set your clock for you. In the top right corner of your screen, a countdown timer will display the remaining time for you to complete the exam. Once the timer reaches zero, the examination will end automatically. The paper need not be submitted when your timer reaches zero.
- 3.) There will, however, be sectional timing for this exam. You will have to complete each section within the specified time limit. Before moving on to the next section, you must complete the current one within the time limits.

General Intelligence & Reasoning

1. Select the correct mirror image of the given figure when the mirror is placed at line AB as shown.

(+1, -0.25)



2. Which two numbers (not digits) should be interchanged to make the following equation correct?

(+1, -0.25)

$$(4 \times 12 + 15) \div 8 - 9 = 0$$

- a. 12 and 15

- b. 4 and 8
- c. 12 and 8
- d. 8 and 9

3. Select the number from among the given options that can replace the question mark (?) in the following series. (+1, -0.25)

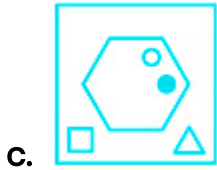
21, 22, 44, 47, 188, ?

- a. 189
- b. 193
- c. 658
- d. 940

4. Select the figure from the given options that can replace the question mark (?) in the following series. (+1, -0.25)



- a.
- b.



5. Select the option that is related to the third letter-cluster in the same way as the second letter-cluster is related to the first letter-cluster. (+1, -0.25)

KNA : PMZ :: RSV : ?

- a. IHE
- b. IJE
- c. IJF
- d. IHF

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6. In a certain code language, 'ROM' is coded as '43', and 'ABK' is coded as '11'. (+1, -0.25)
How will 'PNB' be coded in that language?

- a. 31
- b. 29
- c. 30
- d. 32

7. Select the option in which the numbers are related in the same way as are the numbers in the following sets. (+1, -0.25)

(NOTE: Operations should be performed on the whole numbers, without breaking down the numbers into its constituent digits. E.g. 13 - Operations on 13 such as adding/deleting/multiplying etc. to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed)

(18, 36, 72)

(16, 32, 64)

a. (24, 48, 96)

b. (32, 96, 128)

c. (14, 28, 54)

d. (38, 76, 162)

8. Select the option that is related to the fifth letter-cluster in the same way as the second letter-cluster is related to the first letter-cluster and the fourth letter-cluster is related to the third letter-cluster. (+1, -0.25)

ABC6 : DEF15 :: GHI24 : JKL33 :: PQR51 : ?

a. STU60

b. STU58

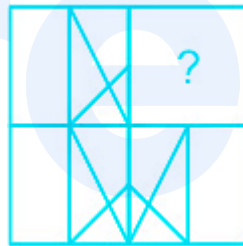
c. TUV59

d. TUV60

9. In a certain code language, 'MK - SP' is coded as '-605', and 'AB - TF' is coded as '-194'. How will 'GM - HK' be coded in that language? (+1, -0.25)

- a. -72
- b. -84
- c. -98
- d. -106

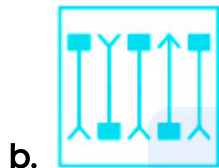
10. Select the figure from the options that can replace the question mark (?) and complete the given pattern (rotation is not allowed). (+1, -0.25)



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11. Select the figure from among the given options that can replace the question mark (?) in the following series.

(+1, -0.25)



12. Select the option that is related to the sixth number in the same way as the first number is related to the second number and the third number is related to the fourth number.

(+1, -0.25)

(NOTE : Operations should be performed on the whole numbers, without breaking down the numbers into its constituent digits. E.g. 13 - Operations on 13 such as adding/deleting/multiplying etc. to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed)

11 : 169 :: 13 : 225 :: ? : 361

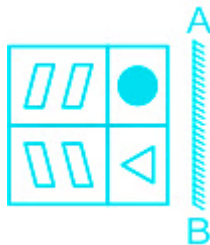
- a. 17
- b. 19
- c. 21
- d. 15

13. In a certain code language, 'COVER' is coded as '63', 'BASIS' is coded as '50', and 'WISH' is coded as '59'. How will 'GREECE' be coded in that language? (+1, -0.25)

- a. 58
- b. 43
- c. 52
- d. 42



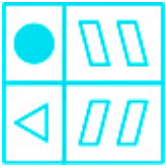
14. Select the correct mirror image of the given figure when the mirror is placed at AB as shown. (+1, -0.25)



- a.



b.



c.



d.

15. Identify the number that does NOT belong to the following series. (+1, -0.25)

16, 34, 52, 72, 88, 106

a. 72

b. 34

c. 88

d. 52

16. Seven girls G1, G2, G3, G4, G5, G6 and G7 are sitting around a circular table facing the centre (not necessarily in the same order). G6 is second to the left of G1. G7 is second to the left of G6. G5 is third to the right of G2. G5 is not the immediate neighbour of G6. G4 is third to the right of G3.

Who is second to the left of G7?

a. G2

- b. G1
 - c. G4
 - d. G3
-

17. Among seven friends Akash, Biraj, Chandan, Dharmesh, Imran, Faisal and Gautam, Biraj is taller than only Dharmesh. Only one person is taller than Faisal. The height of exactly two friends lies in between that of Akash and Chandan. Imran is taller than Gautam. Who is the third tallest person in the group? (+1, -0.25)

- a. Gautam
 - b. Imran
 - c. Faisal
 - d. Dharmesh
-

18. Select the letter-cluster from among the given options that can replace the question mark (?) in the following series. (+1, -0.25)

YZ, BCD, FGHI, ?, QRSTUV

- a. JKLMN
 - b. LMNOP
 - c. KLMNO
 - d. JKLM
-

19. M, N, O, P and Q are standing in a queue to place their order in a restaurant. Only P is standing between M and Q. O is ahead of only N. Who is standing second in the line if there is no other person in the queue? (+1, -0.25)

- a. O
- b. P
- c. Q
- d. M

20. What will come in the place of '?' in the following equation, if 'x' and '-' are interchanged and also '+' and '÷' are interchanged? (+1, -0.25)

$$40 + 10 - 5 \times 4 \div 5 = ?$$

- a. 24
- b. 22
- c. 28
- d. 21

21. Read the given statements and conclusions carefully. Assuming that the information given in the statements is true, even if it appears to be at variance with commonly known facts, decide which of the given conclusions logically follow(s) from the statements. (+1, -0.25)

Statements:

- I. Some cars are bikes.
- II. No truck is a car.

Conclusions:

- I. All trucks are bikes.
 - II. All bikes are cars.
 - III. All cars are trucks.
- a. None of the conclusions follow
 - b. Only conclusion I follows
 - c. Only conclusions I and II follow
 - d. Only conclusions II and III follow

22. Select the option that is related to the third letter-cluster in the same way as the second letter-cluster is related to the first letter-cluster. (+1, -0.25)

MJO : NQQ :: TRA : ?

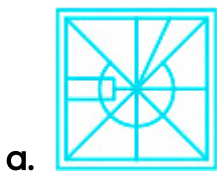
- a. GIC
- b. HIB
- c. HIC
- d. GIB

23. In a certain code language, 'ACCIDENT' is written as 'JDDBUOFE', 'ABSOLUTE' is written as 'PTCBFUVM', and 'ACCURATE' is written as 'VDDBFUBS'. How will 'SENTENCE' be written in that language? (+1, -0.25)

- a. GHJKSDFT
- b. TNESDDND

- c. UOFTFDOF
- d. UFPTEDOE

24. Select the option figure in which the given figure is embedded (rotation is not allowed). (+1, -0.25)



25. Read the given statements and conclusions carefully. Assuming that the information given in the statements is true, even if it appears to be at variance with commonly known facts, decide which of the given conclusions logically follow(s) from the statements. (+1, -0.25)

Statements:

I. No X is G.

II. All B are X.

Conclusions:

I. Some G are B.

II. All X are B.

- a. Both conclusions I and II follow
- b. None of the conclusions follow
- c. Only conclusion II follows
- d. Only conclusion I follows

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Numerical Aptitude

26. The average marks scored by F_1 and F_2 are 40 more than the average marks scored by F_2 and F_3 . If the mark scored by F_3 is 90, then what are the marks obtained by F_1 ? (+1, -0.25)
- a. 130
 - b. 140
 - c. 160
 - d. 170
-
27. If $25 : x :: x : \frac{81}{4}$, find the value of x , if $x > 0$. (+1, -0.25)
- a. 20.5
 - b. 22.5
 - c. 25.0
 - d. 25.2
-
28. If $P = 12 \div 6 - 2$, $Q = 8 \div 2 - 3$, and $R = 18 \div 9 + 5$, then what is the value of $P + R \times Q$? (+1, -0.25)
- a. 9
 - b. 7
 - c. 8
 - d. 6

29. A sum of money, when invested at the rate of 15% per annum at simple interest, amounts to Rs. 26,000 in 2 years. What is the simple interest that accrued during these 2 years? (+1, -0.25)

- a. Rs. 7,500
 - b. Rs. 6,000
 - c. Rs. 6,500
 - d. Rs. 8,800
-

30. The average of a set of ten numbers is 40. If a number is removed from the set, then the average of the remaining numbers becomes 38. What was the number that was removed? (+1, -0.25)

- a. 42
 - b. 54
 - c. 60
 - d. 58
-

31. If $3a : 2b = (6a - 3) : (3b - 2)$ and $a = b - 1$, then what will be the value of $12ab$? (+1, -0.25)

- a. 28
 - b. 24
 - c. 30
 - d. 32
-

32. The cost price of a chair is three times of the profit earned on selling the chair. What is the approximate profit percentage gained through the sale? (+1, -0.25)

- a. 45%
- b. 33.33%
- c. 25%
- d. 20%

33. Prakhar scored 82% marks in an examination. If he scored 656 marks, then what are the total marks for the examination? (+1, -0.25)

- a. 800
- b. 700
- c. 680
- d. 760

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34. Riya and George start walking towards each other from their houses at the speeds of 6 km/h and 8 km/h, respectively. After how long will they meet if the distance between their houses is 28 km. (+1, -0.25)

- a. 5 h
- b. 1.5 h
- c. 3 h
- d. 2 h

35. A person invests Rs. 55,000 for two years on compound interest such that the rate of interest for the first year is 8% per annum and that for the second year is 12% per annum, and the interest is compounded annually. What is the total interest earned by the person? **(+1, -0.25)**
- a. Rs. 11,645
 - b. Rs. 11,528
 - c. Rs. 12,386
 - d. Rs. 10,847
-

36. A fruit seller initially had 'm' kg of apples. He sold 56% of these apples to a customer and was still left with 110 kg of apples. What is the value of 'm'? **(+1, -0.25)**
- a. 250
 - b. 220
 - c. 200
 - d. 280
-

37. The average of 30 numbers is 36. If Z is subtracted from each of these 30 numbers, then the average becomes 28. What is the value of Z? **(+1, -0.25)**
- a. 2
 - b. 8
 - c. 6
 - d. 4
-

38. A car starts at a speed of 30 km/h and increases its speed by 5 km/h after every hour. Another car has a constant speed of 40 km/h. In how much time will both the cars cover an equal distance? **(+1, -0.25)**

- a. 6 hours
 - b. 3 hours
 - c. 5 hours
 - d. 4 hours
-

39. A camp of soldiers has food for 400 days. After 40 days, 150 soldiers leave the camp. As a result, the food can last for 480 days from then onwards. What was the initial number of soldiers? **(+1, -0.25)**

- a. 750
 - b. 600
 - c. 450
 - d. 900
-

40. Meena scored 303 runs against England, in which she hit 32 fours and 4 sixes. What approximate percentage of the total runs were scored by Meena by running between the wickets? **(+1, -0.25)**

- a. 46.24%
- b. 49.83%
- c. 31.24%

d. 47.23%

41. A work could be completed in 100 days by some workers. Due to the absence of 16 workers, the work was completed in 108 days. Find the original number of workers. (+1, -0.25)

a. 204

b. 254

c. 226

d. 216

42. The value of $(799 \times 48 \div 282) - 11 - 121$ is: (+1, -0.25)

a. 4

b. 6

c. 12

d. 7

43. The HCF and the LCM of two numbers are 35 and 840, respectively. If the ratio of the two numbers is 3 : 8, then the smaller of the two numbers is: (+1, -0.25)

a. 35

b. 280

c. 105

d. 210

44. The sum of the radius of the base and the height of a cylinder is 55 cm. If the height of the cylinder mentioned above is 15 cm more than the radius of its base, then what is the curved surface area of this cylinder? [Use $\pi = \frac{22}{7}$] **(+1, -0.25)**
- a. 2200 cm²
 - b. 3500 cm²
 - c. 2800 cm²
 - d. 4400 cm²

45. The following table shows the number of parks in four cities of India. **(+1, -0.25)**

City	Number of parks
Delhi	346
Jaipur	247
Mumbai	326
Kolkata	421

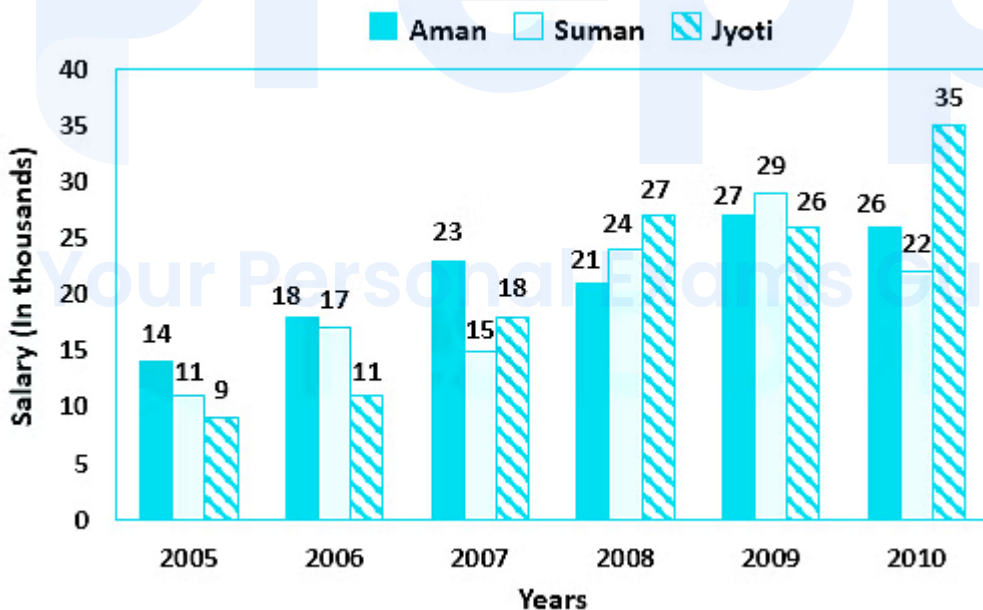
The number of parks in Delhi is what percentage of the total number of parks in all the four cities taken together? [give your answer correct to 1 decimal place.]

- a. 32.2%
- b. 25.8%
- c. 28.7%
- d. 26.4%

46. The area of a trapezium is 100 cm^2 . If the distance between the parallel sides of the trapezium is 10 cm, then what is the sum of the lengths of the two parallel sides? (+1, -0.25)

- a. 18 cm
- b. 20 cm
- c. 15 cm
- d. 10 cm

47. The following bar graph shows the monthly incomes (in thousand rupees) of Aman, Suman and Jyoti in six consecutive years. (+1, -0.25)

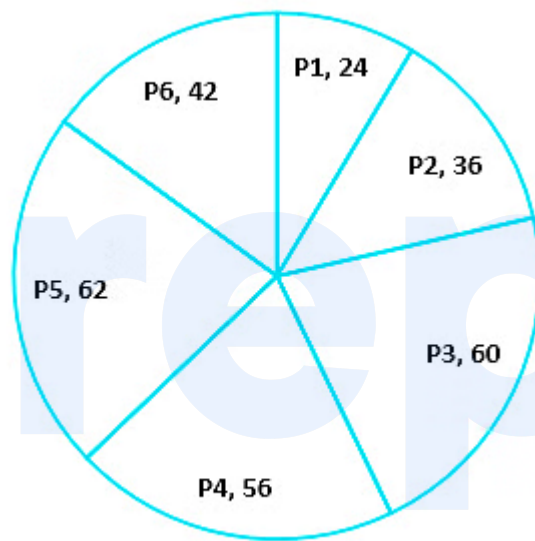


What was the difference between the average monthly income of Jyoti over all the six years taken together and Aman's monthly income in the year 2006?

- a. Rs. 3000

- b. Rs. 3500
- c. Rs. 4000
- d. Rs. 4500

48. The following pie chart shows the actual number (in '000) of books printed in a year by 6 different publishers. (+1, -0.25)



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What is the sum of the central angles made by sector P4 and sector P6?

- a. 108°
- b. 90°
- c. 126°
- d. 144°

49. The marked price of a cup is 20% more than its cost price. What can be the maximum discount given while selling the cup so that there is no loss (+1, -0.25)

incurred? [Give your answer correct to 2 decimal places.]

- a. 14.28%
- b. 14.5%
- c. 16.67%
- d. 20%

50. Half of the perimeter of a square is 50 cm. What is the length of each side of the square? (+1, -0.25)

- a. 15 cm
- b. 30 cm
- c. 25 cm
- d. 20 cm

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General English

51. Select the correctly spelt word. (+1, -0.25)

- a. Discern
- b. Harrass
- c. Reppercusions
- d. Appealling

52. Parts of the following sentence have been given as options. One of them may contain an error. Select the part that contains the error from the given options. If you don't find any error, mark 'No error' as your answer. (+1, -0.25)

I seen a beautiful dress in the market yesterday.

- a. I seen a
- b. the market yesterday
- c. beautiful dress in
- d. No error

53. Select the correctly spelt word. (+1, -0.25)

- a. Disturbence
- b. Implecate
- c. Miniature
- d. Patinece

54. Select the most appropriate ANTONYM of the given word. (+1, -0.25)

Inception

- a. Termination
- b. Regression
- c. Launch
- d. Beginning

55. Select the most appropriate ANTONYM of the underlined word. (+1, -0.25)

It is a benign cyst and requires no treatment.

- a. Mellow
- b. Violent
- c. Delicate
- d. Gracious

56. Select the most appropriate synonym of the given word. (+1, -0.25)

Unique

- a. Typical
- b. Regular
- c. Divine
- d. exclusive

57. Select the most appropriate meaning of the given idiom.

(+1, -0.25)

Barking up the wrong tree

- a. Pursue a course of action that will most likely be futile
- b. Make an enemy of someone
- c. Respectfully disagree with someone
- d. Pursue one's agenda

58. Select the option that will improve the underlined part of the given sentence. In case no improvement is needed, select 'No improvement required'.

(+1, -0.25)

They left the car by the aside of the road and venture toward the forest.

- a. the side of the road and ventured into
- b. the alongside of the road and ventured to
- c. an aside of road and ventured to
- d. No improvement required

59. Select the most appropriate option to substitute the underlined segment in the given sentence. If there is no need to substitute it, select 'No substitution required'.

(+1, -0.25)

His grandfather finds a tiny tiger cub in the forest and brought his home.

- a. brings it home
- b. bringing home

- c. bring it home
 - d. No substitution required
-

60. Select the most appropriate option to fill in the blank. (+1, -0.25)

Success in any field depends _____ hard work and determination.

- a. with
 - b. for
 - c. on
 - d. in
-

61. Select the most appropriate meaning of the given idiom. (+1, -0.25)

Add fuel to the fire

- a. Encourage someone to do right
 - b. Add wrong ingredients
 - c. To abuse someone
 - d. Worsen an already bad situation
-

62. Select the most appropriate option to fill in the blank. (+1, -0.25)

Several pictures and videos have been circulating _____ social media featuring her.

- a. by

- b. of
 - c. to
 - d. on
-

63. Parts of the given sentence have been given as options. One of them may contain an error. Select the part that contains the error from the given options. If you don't find any error, mark 'No error' as your answer. (+1, -0.25)

Mylar balloons cause power outages when they come of contact with power lines.

- a. Mylar balloons cause power outages
 - b. with power lines
 - c. when they come of contact
 - d. No error
-

64. Select the most appropriate option to fill in the blank. (+1, -0.25)

Only 30 per cent worked in companies where paternity leave was an -----.

- a. Acknowledgement
 - b. Entitlement
 - c. Enforcement
 - d. Employment
-

65. Select the most appropriate option to fill in the blank. (+1, -0.25)

A nine-judge bench of the Supreme Court unanimously held that Indians have a/an _____ protected fundamental right to privacy.

- a. permeably
- b. constitutionally
- c. indigenously
- d. unethically

66. Select the most appropriate synonym of the given word. (+1, -0.25)

Enthrall

- a. Deceive
- b. Repulse
- c. Forgive
- d. Captivate

67. Select the option that can be used as a one-word substitute for the given group of words. (+1, -0.25)

One who is outspoken and outgoing

- a. Psychic
- b. Extrovert
- c. Heroic

d. Flamboyant

68. The following sentence has been divided into parts. One of them may contain an error. Select the part that contains the error from the given options. If you don't find any error, mark 'No error' as your answer. (+1, -0.25)

Its always a / beautiful day / in my neighbourhood.

- a. beautiful day
 - b. Its always a
 - c. in my neighbourhood
 - d. No error
-

69. Select the option that will improve the underlined part of the given sentence. In case no improvement is needed, select 'No improvement required'. (+1, -0.25)

The toast will being ready in about 15 minutes.

- a. are being ready
 - b. No improvement required
 - c. will be readily
 - d. will be ready
-

70. Select the most appropriate ANTONYM of the given word. (+1, -0.25)

Exclusion

- a. Discharge
- b. Commotion
- c. Wreck
- d. Admittance

71. **Direction:** In the following passage, some words have been deleted. Read the passage carefully and select the most appropriate option to fill in each blank. (+1, -0.25)

Apart from other pollutions, noise pollution - also known as environmental noise or sound pollution - is (1) _____ issue related to human beings and the environment. It may have an (2) _____ on general health. Compressors, generators and pipe handling are the (3) _____ of noise. Long-term (4) _____ to noise can (5) _____ a variety of health hazards.

Select the most appropriate option to fill in blank number 1.

- a. other
- b. another
- c. once
- d. one's

72. **Direction:** In the following passage, some words have been deleted. Read the passage carefully and select the most appropriate option to fill in each blank. (+1, -0.25)

Apart from other pollutions, noise pollution - also known as environmental noise or sound pollution - is (1) _____ issue related to

human beings and the environment. It may have an (2) _____ on general health. Compressors, generators and pipe handling are the (3) _____ of noise. Long-term (4) _____ to noise can (5) _____ a variety of health hazards.

Select the most appropriate option to fill in blank number 2.

- a. impact
- b. issue
- c. problem
- d. interest

73. **Direction:** In the following passage, some words have been deleted. Read the passage carefully and select the most appropriate option to fill in each blank. (+1, -0.25)

Apart from other pollutions, noise pollution - also known as environmental noise or sound pollution - is (1) _____ issue related to human beings and the environment. It may have an (2) _____ on general health. Compressors, generators and pipe handling are the (3) _____ of noise. Long-term (4) _____ to noise can (5) _____ a variety of health hazards.

Select the most appropriate option to fill in blank number 3.

- a. rise
- b. effects
- c. sources
- d. original

74. **Direction:** In the following passage, some words have been deleted. Read the passage carefully and select the most appropriate option to fill in each blank. (+1, -0.25)

Apart from other pollutions, noise pollution - also known as environmental noise or sound pollution - is (1) _____ issue related to human beings and the environment. It may have an (2) _____ on general health. Compressors, generators and pipe handling are the (3) _____ of noise. Long-term (4) _____ to noise can (5) _____ a variety of health hazards.

Select the most appropriate option to fill in blank number 4.

- a. closure
- b. exposure
- c. safety
- d. vicinity

75. **Direction:** In the following passage, some words have been deleted. Read the passage carefully and select the most appropriate option to fill in each blank. (+1, -0.25)

Apart from other pollutions, noise pollution - also known as environmental noise or sound pollution - is (1) _____ issue related to human beings and the environment. It may have an (2) _____ on general health. Compressors, generators and pipe handling are the (3) _____ of noise. Long-term (4) _____ to noise can (5) _____ a variety of health hazards.

Select the most appropriate option to fill in blank number 5.

- a. record

b. cause

c. mould

d. target

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General Awareness

76. The Tamil Nadu coast gets a large portion of its rain during _____. (+1, -0.25)

- a. October and November
- b. August and September
- c. December and January
- d. February and March

77. The government budget gives a statement of the _____. (+1, -0.25)

- a. receipts of the government only
- b. expenditure of the government only
- c. developments in the Indian economy
- d. receipts and expenditure of the government

78. _____ is known as the energy currency of the cell. (+1, -0.25)

- a. RNA
- b. ATP
- c. DNA
- d. ADP

79. Earthworm belongs to which group of animal kingdom? (+1, -0.25)

- a. Arthropoda
 - b. Nematoda
 - c. Annelida
 - d. Mollusca
-

80. Who among the following has received the prestigious Bharat Ratna Dr Ambedkar Award 2021? (+1, -0.25)

- a. Sana Saeed
 - b. Harshaali Malhotra
 - c. Arjun Rampal
 - d. Jagannath Nivangune
-

81. An alliance formed by political parties after elections when no party has been able to get adequate seats to form a clear majority is called ----- (+1, -0.25)

- a. coalition
 - b. appropriation
 - c. allegiance
 - d. prorogation
-

82. According to the Indian Constitution, all are fundamental rights, EXCEPT: (+1, -0.25)

- a. right to equality

- b. right to property
 - c. right against exploitation
 - d. right to freedom
-

83. _____ in Gujarat was the emporium of western trade during the Mughal Period. (+1, -0.25)

- a. Surat
 - b. Navsari
 - c. Porbandar
 - d. Narmada
-

84. Manish Pandey played for which team in IPL 2022? (+1, -0.25)

- a. Sunrisers Hyderabad
 - b. Lucknow Super Giants
 - c. Gujarat Titans
 - d. Delhi Capitals
-

85. In November 2021, who launched Tejasvini and Hausala schemes in Jammu? (+1, -0.25)

- a. Rajnath Singh
- b. Nirmala Sitharaman

- c. Narendra Modi
 - d. Amit Shah
-

86. Nati is a folk dance of which Indian state? (+1, -0.25)

- a. Himachal Pradesh
 - b. Bihar
 - c. Kerala
 - d. Nagaland
-

87. According to the Census of India 2011, among all the states/UTs Kerala occupied the _____ position in terms of literacy. (+1, -0.25)

- a. second
 - b. fifth
 - c. first
 - d. third
-

88. Megasthenes, an ambassador, was sent to the court of _____ by the Greek ruler of West Asia, the Seleucus Nicator. (+1, -0.25)

- a. Bindusara
- b. Chandragupta
- c. Samprati

d. Ashoka

89. Who wrote the book 'Gulamgiri'?

(+1, -0.25)

- a. Ishwar Chandra Vidyasagar
 - b. Narayana Guru
 - c. Jyotirao Phule
 - d. Ghasidas
-

90. Mrinalini Sarabhai is known for which of the following classical dance forms?

(+1, -0.25)

- a. Bharatanatyam and Kathak
 - b. Kathak and Kathakali
 - c. Bharatanatyam and Kathakali
 - d. Kathak and Odissi
-

91. In India, which organisation is responsible for collecting data related to unemployment?

(+1, -0.25)

- a. NITI Aayog
 - b. Securities and Exchange Board of India
 - c. National Sample Survey Organisation
 - d. Planning Commission
-

92. What is the atomic number of hydrogen in the Mendeleev's periodic table? (+1, -0.25)
- a. 1
 - b. 11
 - c. 5
 - d. 15
-

93. Who among the following Mughal rulers built the Agra Fort? (+1, -0.25)
- a. Babur
 - b. Shahjahan
 - c. Jahangir
 - d. Akbar
-

94. Which of the following festivals is associated with Arunachal Pradesh? (+1, -0.25)
- a. Pongal
 - b. Ugadi
 - c. Wangala
 - d. Solung
-

95. Which of the following football teams won the Indian Super League 2021-2022? (+1, -0.25)

- a. Kerala Blasters FC
 - b. ATK Mohun Bagan FC
 - c. Mumbai City FC
 - d. Hyderabad FC
-

96. Which of the following Indian rivers is also referred to as 'Dakshin Ganga'? (+1, -0.25)

- a. Godavari River
 - b. Sutlej River
 - c. Krishna River
 - d. Mahanadi River
-

97. According to their capacity, roads are classified into how many classes in India? (+1, -0.25)

- a. Five
 - b. Nine
 - c. Six
 - d. Three
-

98. Who is the author of the book 'A Suitable Boy'? (+1, -0.25)

- a. Vikram Seth
- b. Devdutt Pattanaik

- c. Khushwant Singh
 - d. Arundhati Roy
-

99. With which musical instrument is Hariprasad Chaurasia associated? (+1, -0.25)

- a. Flute
 - b. Santoor
 - c. Sitar
 - d. Tabla
-

100. In which year did Mahatma Gandhi arrive in India from South Africa? (+1, -0.25)

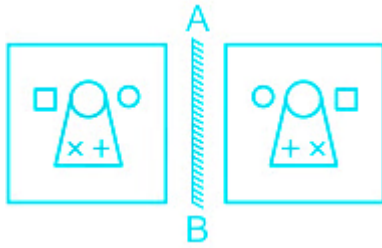
- a. 1911
- b. 1909
- c. 1913
- d. 1915

Answers

1. Answer: b

Explanation:

The correct mirror image of the given figure is:



Hence, the correct answer is "Option 2".

2. Answer: a

Explanation:

Given equation: $(4 \times 12 + 15) \div 8 - 9 = 0$.

BODMAS Table:

B	Brackets in order {}, {}, []	ब्रैकेट {}, {}, [] क्रम में
O	of	का
D	Division (÷)	विभाजन (÷)
M	Multiplication (×)	गुणा (×)
A	Addition (+)	जोड़ (+)
S	Subtraction (-)	घटाव (-)

Let's check each option one by one.

Option 1) 12 and 15

$$\text{Given: } (4 \times 12 + 15) \div 8 - 9 = 0$$

After interchanging the numbers we get;

$$\Rightarrow (4 \times 15 + 12) \div 8 - 9 = 0$$

$$\Rightarrow (60 + 12) \div 8 - 9 = 0$$

$$\Rightarrow 72 \div 8 - 9 = 0$$

$$\Rightarrow 9 - 9 = 0$$

$$\Rightarrow 0 = 0$$

$$\Rightarrow \text{LHS} = \text{RHS}$$

Option 2) 4 and 8

$$\text{Given: } (4 \times 12 + 15) \div 8 - 9 = 0$$

After interchanging the numbers we get;

$$\Rightarrow (8 \times 12 + 15) \div 4 - 9 = 0$$

$$\Rightarrow (96 + 15) \div 4 - 9 = 0$$

$$\Rightarrow 111 \div 4 - 9 = 0$$

$$\Rightarrow 27.75 - 9 = 0$$

$$\Rightarrow 18.75 \neq 0$$

$$\Rightarrow \text{LHS} \neq \text{RHS}$$

Option 3) 12 and 8

$$\text{Given: } (4 \times 12 + 15) \div 8 - 9 = 0$$

After interchanging the numbers we get;

$$\Rightarrow (4 \times 8 + 15) \div 12 - 9 = 0$$

$$\Rightarrow (32 + 15) \div 12 - 9 = 0$$

$$\Rightarrow 47 \div 12 - 9 = 0$$

$$\Rightarrow 3.92 - 9 = 0$$

$$\Rightarrow - 5.08 \neq 0$$

$$\Rightarrow \text{LHS} \neq \text{RHS}$$

Option 4) 8 and 9

$$\text{Given: } (4 \times 12 + 15) \div 8 - 9 = 0$$

After interchanging the numbers we get;

$$\Rightarrow (4 \times 12 + 15) \div 9 - 8 = 0$$

$$\Rightarrow (48 + 15) \div 9 - 8 = 0$$

$$\Rightarrow 63 \div 9 - 8 = 0$$

$$\Rightarrow 7 - 8 = 0$$

$$\Rightarrow - 1 \neq 0$$

$$\Rightarrow \text{LHS} \neq \text{RHS}$$

Hence, the correct answer is "Option 1".

3. Answer: b

Explanation:

The logic followed here is:



So, '193' will complete the series.

Hence, the correct answer is "193".

4. Answer: d

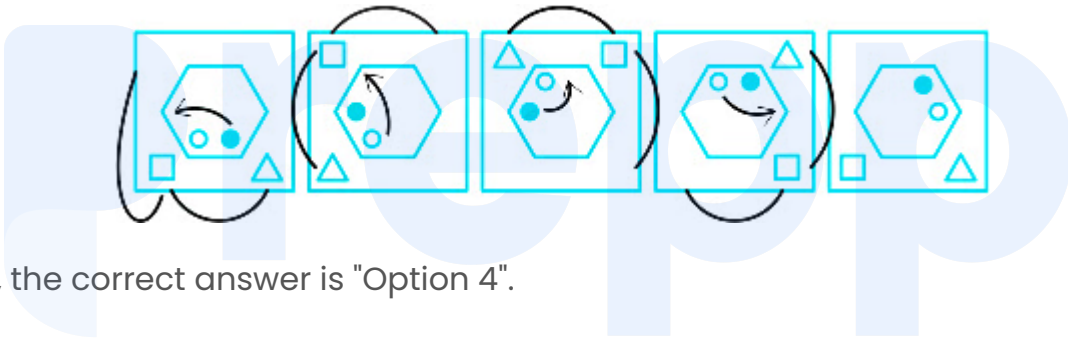
Explanation:

The logic followed here is:

Step I: The circles in the center of the hexagon is getting moves in alternate places.

Step II: The outer side of hexagon is moves one place next in the next boxes.

So, the series will be:



Hence, the correct answer is "Option 4".

5. Answer: a

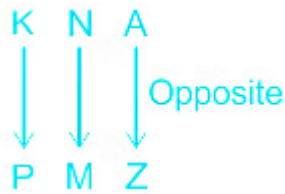
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Explanation:

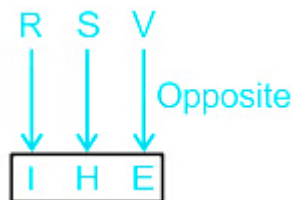
Alphabets	A	B	C	D	E	F	G	H	I	J	K	L	M
Positional value	1	2	3	4	5	6	7	8	9	10	11	12	13
Positional value	26	25	24	23	22	21	20	19	18	17	16	15	14
Alphabets	Z	Y	X	W	V	U	T	S	R	Q	P	O	N

The logic followed here is:

For, KNA : PMZ



Similarly, for RSV : ?



Hence, the correct answer is "Option 1".

6. Answer: b

Explanation:

The logic followed here is:

Logic: **Sum of the place value - 3.**

Now,

'ROM' is coded as '43',

$$\Rightarrow R(18) + O(15) + M(13) - 3$$

$$\Rightarrow 18 + 15 + 13 - 3 = 43.$$

'ABK' is coded as '11',

$$\Rightarrow A(1) + B(2) + K(11) - 3$$

$$\Rightarrow 1 + 2 + 11 - 3 = 11.$$

Similarly, for 'PNB'

$$\Rightarrow P(16) + N(14) + B(2) - 3$$

$$\Rightarrow 16 + 14 + 2 - 3 = 29.$$

So, 'PNB' will be coded as '29'.

Hence, the correct answer is "29".

7. Answer: a

Explanation:

The logic followed here is:

$$\text{1st number} \times 2 = \text{2nd number};$$

$$\text{2nd number} \times 2 = \text{3rd number.}$$

Now,

$$(18, 36, 72)$$

$$\Rightarrow 18 \times 2 = 36,$$

$$\Rightarrow 36 \times 2 = 72.$$

$$(16, 32, 64)$$

$$\Rightarrow 16 \times 2 = 32,$$

$$\Rightarrow 32 \times 2 = 64.$$

Now, checking the options:

$$\text{Option 1: } (24, 48, 96)$$

$$\Rightarrow 24 \times 2 = 48,$$

$$\Rightarrow 48 \times 2 = 96.$$

$$\text{Option 2: } (32, 96, 128)$$

$\Rightarrow 32 \times 2 = 64 \neq 96,$

$\Rightarrow 64 \times 2 = 128.$

Option 3: (14, 28, 54)

$\Rightarrow 14 \times 2 = 28,$

$\Rightarrow 28 \times 2 = 56 \neq 54.$

Option 4: (38, 76, 162)

$\Rightarrow 38 \times 2 = 76,$

$\Rightarrow 76 \times 2 = 152 \neq 162.$

Hence, the correct answer is "Option 1".

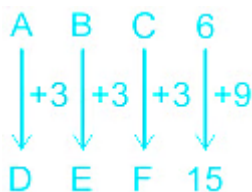
8. Answer: a

Explanation:

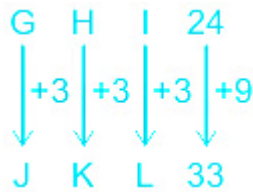
Alphabets	A	B	C	D	E	F	G	H	I	J	K	L	M
Positional value	1	2	3	4	5	6	7	8	9	10	11	12	13
Positional value	26	25	24	23	22	21	20	19	18	17	16	15	14
Alphabets	Z	Y	X	W	V	U	T	S	R	Q	P	O	N

The logic followed here is:

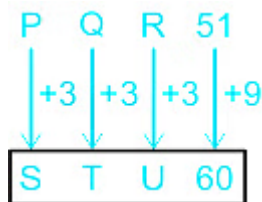
For, ABC6 : DEF15



For, GHI24 : JKL33



Similarly, for PQR51



Hence, the correct answer is "Option 1".

9. Answer: c

Explanation:

The logic followed here is:

Logic: Value of 1st letter pair - Value of 2nd letter pair = Code.

Now,

'MK - SP' is coded as '-605',

⇒ M(13) K(11) - S(19) P(16)

⇒ 1311 - 1916 = - 605

'AB - TF' is coded as '-194',

⇒ A(1) B(2) - T(20) F(6)

⇒ 12 - 206 = - 194.

Similarly, for 'GM - HK'

⇒ G(7) M(13) - H(8) K(11)

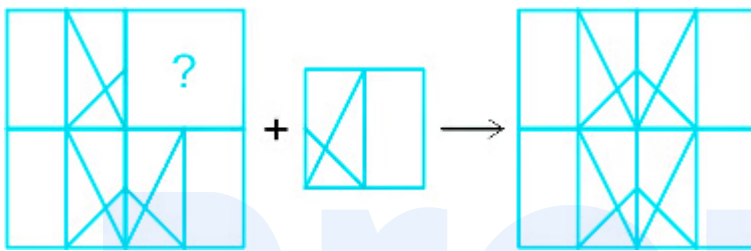
$\Rightarrow 713 - 811 = - 98.$

Hence, the correct answer is "Option 3".

10. Answer: a

Explanation:

The image that complete the pattern is:



Hence, the correct answer is "Option 1".

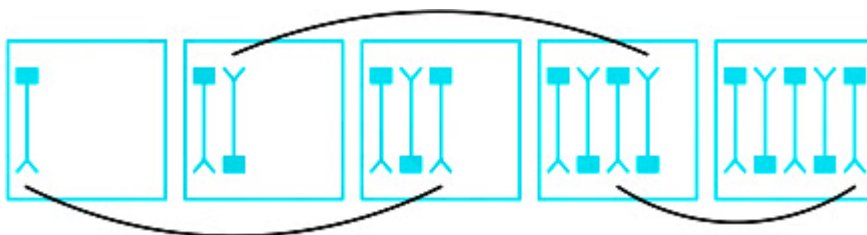
11. Answer: a

Explanation:

The logic followed here is:

Symbol is getting rotated in 180 degree and added in next box.

So, the series will be:



Hence, the correct answer is "Option 1".

12. Answer: a

Explanation:

The logic followed here is:

Logic: $(1st\ number + 2)^2 = 2nd\ number.$

Now,

For, 11 : 169

$$\Rightarrow (11 + 2)^2$$

$$\Rightarrow 13^2 = 169.$$

For, 13 : 225

$$\Rightarrow (13 + 2)^2$$

$$\Rightarrow 15^2 = 225.$$

Similarly, for ? : 361

$$\Rightarrow (17 + 2)^2$$

$$\Rightarrow 19^2 = 361.$$

Hence, the correct answer is "17".

13. Answer: b

Explanation:

Alphabets	A	B	C	D	E	F	G	H	I	J	K	L	M
Positional value	1	2	3	4	5	6	7	8	9	10	11	12	13
Positional value	26	25	24	23	22	21	20	19	18	17	16	15	14
Alphabets	Z	Y	X	W	V	U	T	S	R	Q	P	O	N

The logic followed here is:

Logic: Sum of the Place Value.

Now,

'COVER' is coded as '63',

$$\Rightarrow C(3) + O(15) + V(22) + E(5) + R(18)$$

$$\Rightarrow 3 + 15 + 22 + 5 + 18 = 63.$$

'BASIS' is coded as '50',

$$\Rightarrow B(2) + A(1) + S(19) + I(9) + S(19)$$

$$\Rightarrow 2 + 1 + 19 + 9 + 19 = 50.$$

'WISH' is coded as '59'

$$\Rightarrow W(23) + I(9) + S(19) + H(8)$$

$$\Rightarrow 23 + 9 + 19 + 8 = 59.$$

Similarly, for 'GREECE'

$$\Rightarrow G(7) + R(18) + E(5) + E(5) + C(3) + E(5)$$

$$\Rightarrow 7 + 18 + 5 + 5 + 3 + 5 = 43.$$

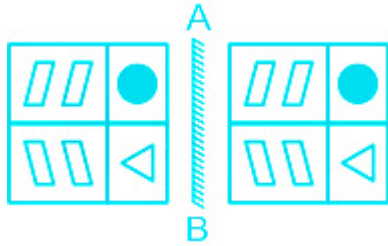
So, 'GREECE' will be coded as '43'.

Hence, the correct answer is "43".

14. Answer: a

Explanation:

The correct mirror image of the given figure is:

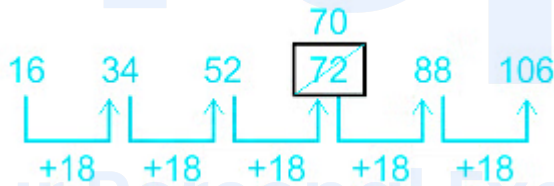


Hence, the correct answer is "Option 1".

15. Answer: a

Explanation:

The logic followed here is:



So, '72' is the number that does NOT belong to the given series.

Hence, the correct answer is "72".

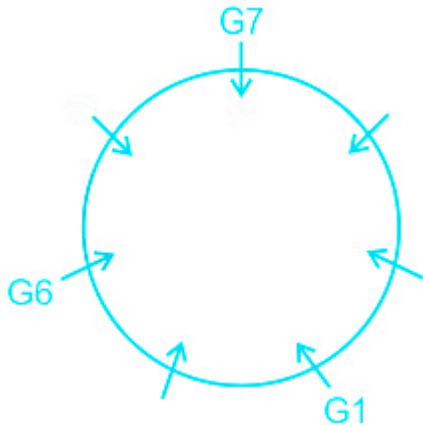
16. Answer: d

Explanation:

Given: Seven girls G1, G2, G3, G4, G5, G6 and G7.

1) G6 is second to the left of G1.

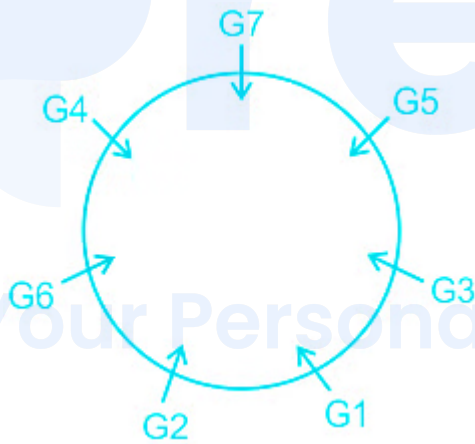
2) G7 is second to the left of G6.



3) G5 is third to the right of G2.

4) G5 is not the immediate neighbour of G6.

5) G4 is third to the right of G3.



G3 is second to the left of G7.

Hence, the correct answer is "G3".

17. Answer: b

Explanation:

Given: Seven friends Akash, Biraj, Chandan, Dharmesh, Imran, Faisal and Gautam.

1) Biraj is taller than only Dharmesh.

2) Only one person is taller than Faisal.

__ > Faisal > __ > __ > __ > Biraj > Dharmesh

The height of exactly two friends lies in between that of Akash and Chandan.

Case I: Akash > Faisal > __ > Chandan > __ > Biraj > Dharmesh

Case II: Chandan > Faisal > __ > Akash > __ > Biraj > Dharmesh

Imran is taller than Gautam.

Case I: Akash > Faisal > Imran > Chandan > Gautam > Biraj > Dharmesh

Case II: Chandan > Faisal > Imran > Akash > Gautam > Biraj > Dharmesh

So, Imran is the third tallest person in the group in both cases.

Hence, the correct answer is "Imran".

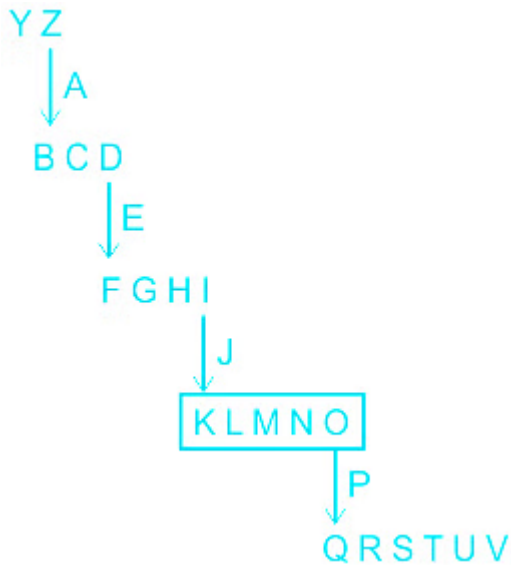
18. Answer: c

Explanation:

Alphabets	A	B	C	D	E	F	G	H	I	J	K	L	M
Positional value	1	2	3	4	5	6	7	8	9	10	11	12	13
Positional value	26	25	24	23	22	21	20	19	18	17	16	15	14
Alphabets	Z	Y	X	W	V	U	T	S	R	Q	P	O	N

The logic followed here is:

Given: YZ, BCD, FGHI, ?, QRSTUV



So, 'KLMNO' will complete the series.

Hence, the correct answer is "Option 3".

19. Answer: b

Explanation:

Given: Five person M, N, O, P and Q.

O is ahead of only N.

___ > ___ > ___ > O > N

Only P is standing between M and Q.

Case I: M > P > Q > O > N

Case II: Q > P > M > O > N

Here, P is standing second in the queue.

Hence, the correct answer is "P".

20. Answer: d

Explanation:

BODMAS Table:

B	Brackets in order {}, {}, []	ब्रैकेट {}, {}, [] क्रम में
O	of	का
D	Division (+)	विभाजन (+)
M	Multiplication (x)	गुणा (x)
A	Addition (+)	जोड़ (+)
S	Subtraction (-)	घटाव (-)

Given equation: $40 + 10 - 5 \times 4 \div 5 = ?$

Now, if 'x' and '-' and '+' and '÷' are interchanged, then:

$$\Rightarrow 40 \div 10 \times 5 - 4 + 5 = ?$$

$$\Rightarrow 4 \times 5 - 4 + 5 = ?$$

$$\Rightarrow 20 - 4 + 5 = ?$$

$$\Rightarrow 25 - 4 = 21.$$

Hence, the correct answer is "Option 4".

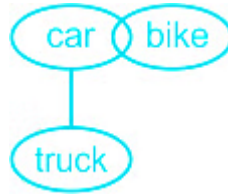
21. Answer: a

Explanation:

Statement:

- I. Some cars are bikes.
- II. No truck is a car.

The least possible diagram for the given statements is as follows:



Conclusions:

- (i) All trucks are bikes - False (Because No definite relation given between trucks and bikes, so it can be possible only).
- (ii) All bikes are cars - False (Some car is bike, but all car is bike is possible not definite).
- (iii) All cars are trucks - False (No truck is a car)

Here, None of the conclusions follow.

Hence, the correct answer is "Option 1".

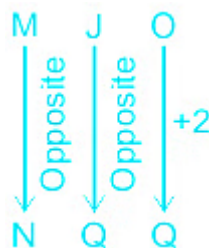
22. Answer: a

Explanation:

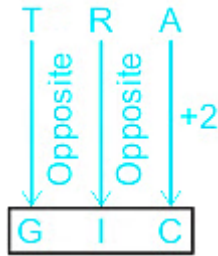
Alphabets	A	B	C	D	E	F	G	H	I	J	K	L	M
Positional value	1	2	3	4	5	6	7	8	9	10	11	12	13
Positional value	26	25	24	23	22	21	20	19	18	17	16	15	14
Alphabets	Z	Y	X	W	V	U	T	S	R	Q	P	O	N

The logic followed here is:

For, MJO : NQQ



Similarly, for TRA :



Hence, the correct answer is "Option 1".

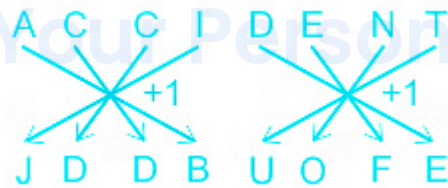
23. Answer: c

Explanation:

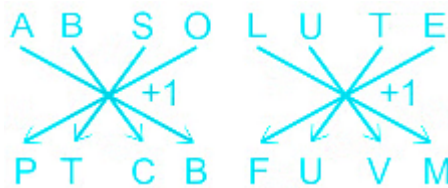
Alphabets	A	B	C	D	E	F	G	H	I	J	K	L	M
Positional value	1	2	3	4	5	6	7	8	9	10	11	12	13
Positional value	26	25	24	23	22	21	20	19	18	17	16	15	14
Alphabets	Z	Y	X	W	V	U	T	S	R	Q	P	O	N

The logic followed here is:

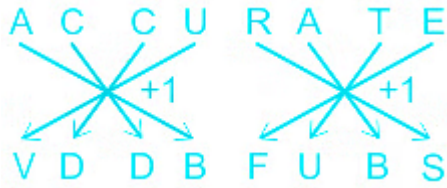
'ACCIDENT' is written as 'JDDBUOFE'



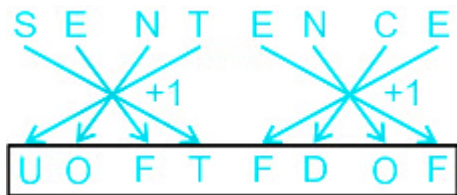
'ABSOLUTE' is written as 'PTCBFUVM'



'ACCURATE' is written as 'VDDBFUBS'



Similarly, for 'SENTENCE':



So, 'SENTENCE' will be coded as 'UOFTFD OF'.









Hence, the correct answer is "Option 3".

24. Answer: a

Explanation:

The image embedded in given figure is as shown below:

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No.	Option	Question	Answer
1.			Embedded
2.			Not Embedded
3.			Not Embedded
4.			Not Embedded

Hence, "Option 1" is the correct answer.

25. Answer: b

Explanation:

Statement:

I. No X is G.

II. All B are X.

The least possible diagram for the given statements is as follows:



Conclusions:

- (i) Some G are B - False (All B are X and No X is G, so No B is G).
- (ii) All X are B - False (It can be possible but not definite).

Here, None of the conclusions follow.

Hence, the correct answer is "Option 2".

26. Answer: d

Explanation:

Given:

Marks scored by F3 = 90

Formula:

Average = (Sum of observations)/(Number of observations)

Solution:

Let the marks scored by F1, F2, and F3 be M1, M2, and M3 respectively.

It is given that the average marks scored by F1 and F2 are 40 more than the average marks scored by F2 and F3. We can express this as:

$$(M1 + M2) / 2 = (M2 + M3) / 2 + 40$$

Simplifying this equation, we get:

$$M1 - M3 = 80$$

Substituting the value of M3, we get:

$$M1 - 90 = 80$$

$$M1 = 170$$

Therefore, FI scored 170 marks.

27. Answer: b

Explanation:

Calculation:

To find the value of x in the proportion $25 : x :: x : 81/4$, we can use the property of proportion that states:

In proportion, the product of the extremes (first and last terms) is equal to the product of the means (middle terms).

So, we can write:

$$25 * (81/4) = x * x$$

Simplifying this equation, we get:

$$25 * 81 / 4 = x^2$$

$$2025 / 4 = x^2$$

Taking the square root of both sides, we get:

$$x = \pm\sqrt{(2025 / 4)}$$

$$x = \pm(45/2)$$

Since x can't be negative, we take only the positive value:

$$x = 45/2 = 22.5$$

∴ Option 2 is the correct answer.

28. Answer: b

Explanation:

Calculation:

Let's start by solving for P, Q, and R using the given expressions:

$$P = 12 \div 6 - 2 = 2 - 2 = 0$$

$$Q = 8 \div 2 - 3 = 4 - 3 = 1$$

$$R = 18 \div 9 + 5 = 2 + 5 = 7$$

Now we can substitute these values into the expression $P + R \times Q$:

$$P + R \times Q = 0 + 7 \times 1 = 7$$

Therefore, the value of $P + R \times Q$ is 7.

29. Answer: b

Explanation:

Given:

Rate of interest (R) = 15% per annum

Time (T) = 2 years

Amount (A) = Rs. 26,000

Formula Used:

Simple Interest (SI) = $\frac{PRT}{100}$

Amount (A) = $P + SI$

Solution:

We need to find the principal (P) and simple interest (SI) from the given information.

From the formula for simple interest, we know that:

$$SI = \frac{P R T}{100}$$

Substituting the given values, we get:

$$\Rightarrow SI = P \times 15 \times \frac{2}{100}$$

$$\Rightarrow SI = P \times 0.3$$

Also, from the formula for amount, we know that:

$$\Rightarrow A = P + SI$$

Substituting the given values, we get:

$$\Rightarrow 26000 = P + P \times 0.3$$

Simplifying this equation, we get:

$$\Rightarrow 26000 = P(1 + 0.3)$$

$$\Rightarrow 26000 = P(1.3)$$

$$\Rightarrow P = \frac{26000}{1.3}$$

$$\Rightarrow P = 20000$$

Therefore, the principal is Rs. 20,000.

$$\text{Amount (A)} = P + SI$$

$$\Rightarrow 26000 = 20000 + SI$$

$$\Rightarrow SI = 6000$$

Therefore, the simple interest that accrued during the 2 years is Rs. 6,000.

30. Answer: d

Explanation:

Given:

The average of a set of ten numbers = 40

The average of the remaining nine numbers when one number is removed = 38

Formula Used:

The formula for the average (arithmetic mean) is: the sum of numbers/number of numbers

Solution:

Let's assume that the number that was removed is x . Then, we can use the formula for the average to set up two equations with two variables, as follows:

$$(1) \text{ (sum of the 10 numbers)}/10 = 40$$

$$(2) \text{ (sum of the 9 remaining numbers)}/9 = 38$$

From equation (1), we know that:

$$\text{sum of the 10 numbers} = 10 \times 40 = 400$$

From equation (2), we know that:

$$\text{sum of the 9 remaining numbers} = 9 \times 38 = 342$$

If we add x to the sum of the 9 remaining numbers, we should get the sum of the original 10 numbers:

$$\text{sum of the 10 numbers} = \text{sum of the 9 remaining numbers} + x$$

Substituting the known values, we get:

$$400 = 342 + x$$

Simplifying this equation, we get:

$$x = 400 - 342$$

$$x = 58$$

Therefore, the number that was removed from the set is 58.

31. Answer: b

Explanation:

Given:

$$3a : 2b = (6a - 3) : (3b - 2)$$

$$a = b - 1$$

To find:

The value of $12ab$

Solution:

We can begin by substituting the given value of a in terms of b into the equation for $3a : 2b$. This gives:

$$3(b-1) : 2b = (6(b-1) - 3) : (3b - 2)$$

Simplifying this equation, we get:

$$(3b - 3) : 2b = (6b - 9) : (3b - 2)$$

We can now cross-multiply to eliminate the denominators and simplify:

$$\Rightarrow (3b - 3)(3b - 2) = (6b - 9)2b$$

$$\Rightarrow 9b^2 - 15b + 6 = 12b^2 - 18b$$

$$\Rightarrow 3b^2 - 3b - 6 = 0$$

$$\Rightarrow b^2 - b - 2 = 0$$

$$\Rightarrow (b - 2)(b + 1) = 0$$

So, $b = 2$ or $b = -1$.

If $b = 2$, then $a = b - 1 = 1$, and we can find the value of $12ab$ as:

$$12ab = 12 \times 1 \times 2 = 24$$

If $b = -1$, then $a = b - 1 = -2$, and we can find the value of $12ab$ as:

$$12ab = 12 \times (-2) \times (-1) = 24$$

Therefore, the value of $12ab$ is 24.

32. Answer: b

Explanation:

Given:

The cost price of a chair is three times the profit earned on selling the chair.

To find:

The approximate profit percentage gained through the sale.

Formula Used:

$$\text{Profit Percentage} = (\text{Profit}/\text{cost Price}) \times 100\%$$

Solution:

Let's assume that the cost price of the chair is C , and the profit earned on selling the chair is P . Then, we can use the given information to set up the following equation:

$$C = 3P$$

We know that profit (P) is the difference between the selling price (S) and the cost price (C). So, we can write:

$$P = S - C$$

Substituting the value of C from the first equation, we get:

$$P = S - 3P$$

Simplifying this equation, we get:

$$4P = S$$

Now, we can use the formula for a profit percentage to calculate the approximate profit percentage gained through the sale:

$$\text{Profit Percentage} = (\text{Profit}/\text{Cost Price}) \times 100\%$$

$$\text{Profit Percentage} = (P/C) \times 100\%$$

$$\text{Profit Percentage} = (P/3P) \times 100\%$$

$$\text{Profit Percentage} = (1/3) \times 100\%$$

$$\text{Profit Percentage} = 33.33\% \text{ (approx.)}$$

Therefore, the approximate profit percentage gained through the sale is 33.33%.

33. Answer: a

Explanation:

Given:

Prakhar scored 82% marks in an examination.
He scored 656 marks.

To find:

The total marks of the examination.

Formula used:

$$\text{Percentage} = (\text{Marks obtained}/\text{Total marks}) \times 100\%$$

Solution:

Let the total marks of the examination be T. Then, we can use the formula for the percentage to set up the following equation:

$$82\% = (656/T) \times 100\%$$

We can simplify this equation as follows:

$$82/100 = 656/T$$

$$T = (656 \times 100)/82$$

$$T = 800$$

Therefore, the total marks for the examination are 800.

34. Answer: d

Explanation:

Given:

Riya walks at a speed of 6 km/h.
George walks at a speed of 8 km/h.
The distance between their houses is 28 km.

To find:

After how long will they meet.

Formula used:

$$\text{Time} = \text{Distance}/\text{Speed}$$

Solution:

When two persons start walking towards each other from opposite directions, the distance between them decreases at a rate equal to the sum of their speeds. Therefore, we can use the formula for time to calculate when they will meet:

Let t be the time taken by them to meet.

Distance covered by Riya = $6t$ km

Distance covered by George = $8t$ km

The total distance covered by both of them is equal to the distance between their houses, which is 28 km. Therefore, we can write:

$$6t + 8t = 28$$

Simplifying this equation, we get:

$$14t = 28$$

$$t = 2$$

Therefore, they will meet after 2 hours of starting their journey.

35. Answer: b

Explanation:

Given:

A person invests Rs. 55,000 for two years on compound interest.

The rate of interest for the first year is 8% per annum.

The rate of interest for the second year is 12% per annum.

The interest is compounded annually.

To find:

The total interest earned by the person.

Formula used:

For compound interest, the formula is:

$$A = P(1 + r/100)^n$$

Where,

A = Amount

P = Principal

r = Rate of interest

n = Number of years

Interest = Amount - Principal

Solution:

Let's first calculate the interest earned in the first year:

Principal for the first year = Rs. 55,000

Rate of interest for the first year = 8%

Number of years = 1

Amount after the first year

$$A = P(1 + r/100)^n$$

$$55,000(1 + 8/100)^1$$

Rs. 59,400

Interest earned in the first year

Amount - Principal

$$59,400 - 55,000 \text{Rs. } 4,400$$

Now, let's calculate the interest earned in the second year:

Principal for the second year = Rs. 59,400

Rate of interest for the second year = 12%

Number of years = 1

Amount after the second year

$$A = P(1 + r/100)^n$$

$$59,400(1 + 12/100)^1$$

Rs. 66,528

Interest earned in the second year

Amount - Principal

$$66,528 - 59,400$$

Rs. 7,128

Therefore, the total interest earned by the person in two years = Interest earned in the first year + Interest earned in the second year

= Rs. 4,400 + Rs. 7,128

= Rs. 11,528

Hence, the total interest earned by the person in two years is Rs. 11,528.

36. Answer: a

Explanation:

Given:

A fruit seller initially had 'm' kg of apples.
He sold 56% of these apples to a customer.
He was still left with 110 kg of apples.

To find:

The value of 'm'.

Formula used:

We can use the formula:

Quantity sold = Initial quantity - Final quantity

Where,

Quantity sold is the quantity sold to the customer, i.e., 56% of 'm'.

The initial quantity is 'm', the initial quantity of apples.

The final quantity is 110 kg, the quantity left after selling 56% of 'm'.

Solution:

According to the given information, we can write the equation:

$$0.56m = m - 110$$

Simplifying this equation, we get:

$$0.44m = 110$$

$$m = 250$$

Therefore, the fruit seller initially had 250 kg of apples.

Hence, the value of 'm' is 250.

37. Answer: b

Explanation:

Given:

The average of 30 numbers is 36.

If Z is subtracted from each of these 30 numbers, then the average becomes 28.

To find:

The value of Z.

Formula used:

We can use the formula:

$$\text{New sum} = \text{Old sum} - nZ$$

Where,

The new sum is the sum of the new set of numbers obtained by subtracting Z from each of the original numbers.

The old sum is the sum of the original set of numbers.

n is the number of terms in the set.

Solution:

Let us assume that the sum of the 30 numbers is S.

According to the given information,

The average of the 30 numbers is 36. Therefore, the sum of the 30 numbers is $30 \times 36 = 1080$.

If Z is subtracted from each of these 30 numbers, then the average becomes 28. Therefore, the sum of the new set of numbers is $30 \times 28 = 840$.

Using the formula, we get:

$$\text{New sum} = \text{Old sum} - nZ$$

$$\Rightarrow 840 = 1080 - 30Z$$

$$\Rightarrow 30Z = 240$$

$$\Rightarrow Z = 8$$

Therefore, the value of Z is 8.

38. Answer: c

Explanation:

Given:

The first car starts at 30 km/h and increases its speed by 5 km/h after every hour. The second car has a constant speed of 40 km/h.

Calculation:

Let's assume that both cars cover the same distance in ' t ' hours.

In the first hour, the first car covers a distance of 30 km. In the second hour, it covers a distance of $30+35 = 65$ km. In the third hour, it covers a distance of $30+35+40 = 105$ km. Therefore, the total distance covered by the first car in ' t ' hours can be calculated using the arithmetic progression formula:

$$\text{distance covered by first car} = (t/2) \times [2a + (t-1)d]$$

where a is the first term (i.e., 30), d is a common difference (i.e., 5), and t is the number of terms.

$$\text{distance covered by first car} = (t/2) \times [2(30) + (t-1)(5)]$$

$$\text{distance covered by first car} = (t/2) \times (60 + 5t - 5)$$

$$\text{distance covered by first car} = (t/2) \times (5t + 55)$$

$$\text{distance covered by first car} = (5t^2 + 55t)/2$$

Similarly, the distance covered by the second car in 't' hours is simply:

$$\text{distance covered by the second car} = 40t$$

Now we can set the two distances equal to each other and solve for 't':

$$\Rightarrow (5t^2 + 55t)/2 = 40t$$

$$\Rightarrow 5t^2 + 55t = 80t$$

$$\Rightarrow 5t^2 - 25t = 0$$

$$\Rightarrow 5t(t - 5) = 0$$

$$\Rightarrow t = 0 \text{ (extraneous) or } t = 5$$

Therefore, both cars will cover an equal distance in 5 hours.

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39. Answer: b

Explanation:

Calculation:

The food is sufficient for 400 days.

Let the initial number of soldiers be x.

After 40 days, the remaining number of soldiers = x - 150.

Now, the food is sufficient for 480 days for the remaining number of soldiers.

As the total amount of food is the same, we can equate them.

$$x \times 400 = (x - 150) \times 480 + 40x$$

$$10x = (x - 150) \times 12 + x$$

$$\Rightarrow 3x = 1800$$

$$\Rightarrow x = 600$$

Therefore, the initial number of soldiers = 600.

40. Answer: b

Explanation:

Given:

Total runs scored by Meena = 303

To find:

Approximate percentage of runs scored by Meena by running between the wickets

Formula:

Percentage of runs scored by running between the wickets = $(\text{Total runs scored} - \text{Runs scored through boundaries}) / \text{Total runs scored} \times 100$

Calculation:

Number of runs scored by Meena through boundaries (fours and sixes)

$$\Rightarrow 32 \times 4 + 4 \times 6 = 128 + 24 = 152$$

Percentage of runs scored by running between the wickets

$$\Rightarrow (303 - 152) / 303 \times 100 \approx 49.83\%$$

Therefore, approximately 49.83% of the total runs were scored by Meena by running between the wickets.

41. Answer: d

Explanation:

Formula:

The total work done is equal to the product of the number of workers, time taken, and efficiency.

Mathematically,

Work = Number of workers × Time × Efficiency

Calculation:

Let the original number of workers be x .

The work could be completed in 100 days by x workers.

Due to the absence of 16 workers, the work was completed in 108 days.

According to the given information,

$$\Rightarrow 100x = (x - 16) \times 108$$

Simplifying the above equation, we get

$$\Rightarrow 100x = 108x - 1728$$

$$\Rightarrow 8x = 1728$$

$$\Rightarrow x = 216$$

Therefore, the original number of workers is 216.

42. Answer: a

Explanation:

Calculation:

$$(799 \times 48 \div 282) - 11 - 121$$

$$\Rightarrow 136 - 11 - 121$$

$$\Rightarrow 125 - 121$$

$$\Rightarrow 4$$

∴ Option 1 is the correct answer.

43. Answer: c

Explanation:

Given:

$$\text{HCF} = 35$$

$$\text{LCM} = 840$$

The ratio of the two numbers = 3 : 8

Formula used:

$$\text{HCF} \times \text{LCM} = \text{product of two numbers}$$

Calculation:

Let the two numbers be $3x$ and $8x$ (as per the given ratio)

We know that $\text{HCF} \times \text{LCM} = \text{product of two numbers}$

$$\Rightarrow 35 \times 840 = 3x \times 8x$$

Simplifying, we get:

$$\Rightarrow x^2 = 35 \times 35$$

$$\Rightarrow x = 35$$

Therefore, the two numbers are $3x = 3 \times 35 = 105$ and $8x = 8 \times 35 = 280$.

Hence, the smaller of the two numbers is 105.

44. Answer: d

Explanation:

Given:

The sum of the radius of the base and the height of a cylinder is 55 cm.
The height of the cylinder is 15 cm more than the radius of its base.

Formula:

The curved surface area of a cylinder = $2\pi rh$, where r is the radius of the base, and h is the height of the cylinder.

Solution:

Let's assume that the radius of the cylinder's base is " r " cm. Then, according to the problem, the height of the cylinder would be $(r + 15)$ cm.

Since the sum of the radius of the base and the height of the cylinder is 55 cm, we can write:

$$\Rightarrow r + (r + 15) = 55$$

Simplifying the above equation, we get:

$$\Rightarrow 2r + 15 = 55$$

$$\Rightarrow 2r = 40$$

$$\Rightarrow r = 20$$

Therefore, the radius of the base is 20 cm, and the height of the cylinder is 35 cm (20 + 15).

Now, we can use the formula for the curved surface area of a cylinder:

$$\text{Curved surface area} = 2\pi rh$$

Substituting the values, we get:

$$\text{Curved surface area} = 2 \times \frac{22}{7} \times (20)(35)$$

$$\text{Curved surface area} = 4400 \text{ cm}^2$$

Therefore, the curved surface area of the cylinder is 4400 cm².

45. Answer: b

Explanation:

Calculation:

$$\text{Total number of parks in all four cities} = 346 + 247 + 326 + 421 = 1340$$

$$\text{Number of parks in Delhi} = 346$$

To find the percentage of parks in Delhi, we can use the formula:

$$\text{Percentage} = \left(\frac{\text{Number of parks in Delhi}}{\text{Total number of parks in all four cities}} \right) \times 100$$

Substituting the values, we get:

$$\text{Percentage} = \left(\frac{346}{1340} \right) \times 100 = 25.8\%$$

Therefore, the number of parks in Delhi is 25.8% of the total number of parks in all four cities taken together.

46. Answer: b

Explanation:

Given:

The area of a trapezium is 100 cm^2 .

The distance between the parallel sides of the trapezium is 10 cm.

Formula:

Area of trapezium = $(1/2) \times (\text{sum of parallel sides}) \times (\text{distance between parallel sides})$

Solution:

Let's assume that the length of the two parallel sides of the trapezium is "a" cm and "b" cm, where "a" is the longer side and "b" is the shorter side.

Then, using the formula for the area of a trapezium, we can write:

Area of trapezium = $(1/2) \times (\text{sum of parallel sides}) \times (\text{distance between parallel sides})$

Substituting the given values, we get:

$$100 = (1/2) \times (a + b) \times 10$$

Simplifying the above equation, we get:

$$(a + b) = 20$$

Therefore, the sum of the lengths of the two parallel sides is 20 cm.

47. Answer: a

Explanation:

Calculation:

According to the question:

Average monthly income of Jyoti over the six-year

$$(9000 + 11000 + 18000 + 27000 + 26000 + 35000)/6 = 21000$$

Aman's monthly income in the year 2006 = 18000

$$\text{Difference} = 21000 - 18000 = 3000$$

∴ Option 1 is the correct answer.

48. Answer: c

Explanation:

Formula used:

$$\text{Central angle of a sector} = (\text{Sector value} / \text{Total value}) \times 360 \text{ degrees}$$

Calculation:

Using this formula, we can find the central angles of Sector P4 and Sector P6 as follows:

$$\begin{aligned} \text{Central angle of sector P4} &= (56 / (24 + 36 + 60 + 56 + 62 + 42)) \times 360 \\ &= (56 / 280) \times 360 \\ &= 72 \text{ degrees} \end{aligned}$$

$$\begin{aligned} \text{Central angle of sector P6} &= (42 / (24 + 36 + 60 + 56 + 62 + 42)) \times 360 \\ &= (42 / 280) \times 360 \\ &= 54 \text{ degrees} \end{aligned}$$

Now we can find the sum of the central angles made by sector P4 and sector P6 as follows:

The sum of central angles = Central angle of sector P4 + Central angle of sector P6
= 72 + 54
= 126 degrees

Therefore, the sum of the central angles made by sector P4 and sector P6 is 126 degrees.

49. Answer: c

Explanation:

Given:

MP = 120% of CP

Concept:

To sell an object with no profit no loss, it should be sold at CP. Consider the CP be 100 and then proceed.

Formula used:

If 'x' and 'y' are two numbers and $y > x$

then 'y' is less than 'x' in % is given by

$$\Rightarrow [(y - x)/y] \times 100$$

Calculation:

Let the CP of the object be 100.

\therefore MP = 120% of CP

$$\therefore \text{MP} = (120/100) \times 100$$

\Rightarrow 120.

\therefore To sell the object with no profit no loss

$$\Rightarrow SP = CP$$

$$\therefore \% \text{ less Price to sell at CP} = \left[\frac{(MP - CP)}{MP} \right] \times 100$$

$$\Rightarrow \left[\frac{(120 - 100)}{120} \right] \times 100$$

$$\Rightarrow \left(\frac{20}{120} \right) \times 100$$

$$\Rightarrow 100/6$$

$$\Rightarrow 16\frac{2}{3}\% = 16.67\%$$

\therefore The correct answer is $16\frac{2}{3}\%$.

★ **Shortcut Trick**

Calculation:

C.P : M.P	5	6
M.P : S.P	x	y
C.P : S.P	1	1

So, $x : y = 6 : 5$

$$\text{Price decrement \%} = \left(\frac{1}{6} \right) \times 100 = 16.67\% \sim 16\frac{2}{3}\%$$

\therefore The correct answer is 16.67%.

50. Answer: c

Explanation:

Given:

Half of the perimeter of a square is 50 cm.

Formula:

Perimeter of square = $4 \times$ length of each side

Solution:

Let's assume that the length of each side of the square is "s" cm.

Half of the perimeter of the square is given as 50 cm. Mathematically, we can write this as:

$$(1/2) \times 4s = 50$$

Simplifying the above equation, we get:

$$2s = 50$$

$$s = 25$$

Therefore, the length of each side of the square is 25 cm.

51. Answer: a

Explanation:

The correct answer is "Discern".

★ Key Points

- In the given options, "Discern" is only correctly spelt word.
- The word "Discern" means to difficultly distinguish or recognize as separate and distinct
 - **Example:** It is difficult to **discern** any pattern in these figures.
- Thus, *option 1*) is the correct alternative.

★ Additional Information

Let us see the correct spellings and meaning of other options too.

- **Harass:** To trouble or threaten someone by doing unpleasant to them.
 - **Example:** The was being **harassed** by her husband since ten years.
- **Repercussions:** A resultant activity, consequence.

- **Example:** The **repercussions** of increased pollution is alarming day by day.
- **Appealing:** Something attractive or interesting.
 - **Example:** Her attire for the ceremony was very **appealing**.

52. Answer: a

Explanation:

The correct answer is "I **seen a**".

★ Key Points

- In the given options, the error lies in "I **seen a**" part.
- The given sentence is in **Simple Past Tense** form.
- Here, we use the **second form** of the verb 'see' instead of the third form.
- Thus, *option 1*) is the correct alternative.

The correct sentence: I saw a beautiful dress in the market yesterday.

★ Additional Information

Let us understand the rules of Past Tense.

Tenses	Rules
Past simple tense	Subject + V2 + Object
Past Perfect tense	Subject + had + V3 + Object
Past Continuous tense	<ul style="list-style-type: none"> ● Subject + was + V1 + ing + Object (Singular) ● Subject + were + V1 + ing + Object (Plural)
Past perfect continuous tense	Subject + had been + V1 + ing + Object

53. Answer: c

Explanation:

Here the correct answer is **Miniature**.

★ Key Points

- The correct spelling is "**Miniature**".
- **Miniature** means **something that is very small or a small-scale version of something**.
 - Example sentence: She collected **miniature** figurines that were no more than an inch tall.
- Thus, the correct answer is **Option 3**.

★ Additional Information

- The **correct spelling** of incorrectly spelled words are:
- **Disturbance** - a disruption or interference with something
 - Example: The loud noise from the construction site was causing a **disturbance** in the neighborhood.
- **Implicate** - to show or suggest someone's involvement in a crime or wrongdoing
 - Example: The evidence found at the scene **implicated** the suspect in the robbery.
- **Patience** - the ability to remain calm and composed in difficult situations
 - Example: She needed to have **patience** and wait for the results of her medical tests.

54. Answer: a

Explanation:

Here the correct answer is **Termination**.

★ Key Points

- The most appropriate antonym of "Inception" is "Termination".
- **Inception** means **the beginning or start of something**, while **Termination** means **the end of something**.
 - Example sentence: The **inception** of the new project was delayed due to unforeseen circumstances.
 - Example sentence: The **termination** of the contract was due to a breach of agreement.
- Other options are not correct antonyms of "Inception" as they either have a similar meaning or are not related to the concept of starting something.
- Therefore, "**Termination**" is the correct antonym of "**Inception**".
- Thus, the correct answer is **Option 1**.

★ Additional Information

- Let's have a look at the **meaning** of other words given in options:-
- **Regression** - This means a return to an earlier state or a decrease in quality, which is not the opposite of "Inception".
 - Example sentence: The **regression** of the economy is causing concern among the citizens.
- **Launch** - This means to start or set in motion, which is a synonym of "Inception" rather than its antonym.
 - Example sentence: The company plans to **launch** its new product next month.
- **Beginning** - This is a synonym of "Inception" and not its antonym.
 - Example sentence: The **beginning** of the school year is always an exciting time for students.

55. Answer: b

Explanation:

Here the correct answer is **Violent**.

★ Key Points

- The most appropriate antonym of the underlined word "**benign**" is "**violent**".
- "**Benign**" means **not harmful or gentle**, while "**violent**" means **aggressive or forceful**.
 - Example sentence: The doctor assured her that the lump was **benign** and did not require any treatment.
 - Example sentence: The storm caused **violent** winds and heavy rainfall, resulting in extensive damage.
- Therefore, "**violent**" is the correct antonym of "**benign**".
- The other options are not correct antonyms of "**benign**" as they are not related to the concept of harm.
- Thus, the correct answer is **Option 2**.

★ Additional Information

- Let's have a look at the **meaning** of the other words given in options:-
- **Mellow** - This means relaxed or calm, which is not the opposite of "benign".
 - Example sentence: The **mellow** music helped to soothe the baby to sleep.
- **Delicate** - This means fragile or easily broken, which is not the opposite of "benign".
 - Example sentence: The **delicate** glass vase was placed on the top shelf to avoid any accidents.
- **Gracious** - This means courteous or kind, which is not the opposite of "benign".
 - Example sentence: She was **gracious** enough to offer us a ride home.

56. Answer: d

Explanation:

Here the correct answer is **Exclusive**.

★ Key Points

- The most appropriate synonym of the given word "**Unique**" is "**Exclusive**".
- "**Unique**" means **one of a kind, or something that is not like anything else**, while "**exclusive**" means **limited to a particular person or group, or not shared with others**.

- Example sentence: Her collection of antique jewelry was **unique** and valuable.
- Example sentence: The **exclusive** club was only accessible to its members.
- The other options are not synonyms of "**unique**" as they either have a different meaning or are not related to the concept of being one of a kind.
- Therefore, "**exclusive**" is the correct synonym of "**unique**".
- Thus, the correct answer is **Option 4**.

★ Additional Information

- Let's have a look at the **meaning** of the other words given in options:-
- **Typical** - This means usual or common, which is the opposite of "unique".
 - Example sentence: The restaurant served **typical** Italian cuisine, including pizza and pasta.
- **Regular** - This means normal or consistent, which is not related to the concept of being one of a kind.
 - Example sentence: She had a **regular** exercise routine that she followed every morning.
- **Divine** - This means heavenly or godlike, which is not related to the concept of being one of a kind.
 - Example sentence: The temple was known for its **divine** atmosphere and beautiful architecture.

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57. **Answer: a**

Explanation:

Here the correct answer is **Pursue a course of action that will most likely be futile.**

★ Key Points

- The idiom "**Barking up the wrong tree**" means **to make a mistake or to be mistaken about something, especially when accusing or blaming someone.**
- It implies that **someone is directing their efforts in the wrong direction and will not achieve the desired result.**
- For example:

- If you think I stole your wallet, you're **barking up the wrong tree**. I was in a meeting when it went missing.
- Tom thought he could win the game by attacking the weakest player, but he was **barking up the wrong tree**.
- Thus, the correct answer is **Option 1**.

★ Additional Information

- The word "**futile**" means **ineffective, useless, or having no practical value**. It describes a situation or action that is pointless and unlikely to succeed.
 - **Example sentence:** Despite his efforts to repair the old car, it was a **futile** attempt as the vehicle was beyond repair.

58. Answer: a

Explanation:

The correct answer is "the side of the road and ventured into".

★ Key Points

- In the given options, the correct answer is '**the side of the road and ventured into**'.
- Here, adverb "**aside**" needs to be replaced by "**the side**".
- The above sentence is in **simple past tense**, so "**ventured**" is to be used.
- We used "**into**" in the sentence to indicate the movement.
- Thus, **option 1)** is the correct alternative.

★ Additional Information

Let us understand the usage of the adverbs more clearly.

- The directional adverb "**aside**" denotes movement or a shift in position.
 - **Example:** Move **aside**.
 - I will set this **aside** for now.
- The phrase "**to the side**" has a similar meaning, but it can also refer to the **fixed position** of one object in reference to another.

- **Example:** Legs are said to be "**to the side**" or "**on the side**" because they are obviously fixed in place on the body.
- Using "**into**" in a sentence denotes motion; an action is taking place.
 - **Example:** He was wandering **into** the woods.

59. Answer: a

Explanation:

The correct answer is "**brings it home**".

★ Key Points

- In the given options, "**brings it home**" is the most appropriate option to substitute the underlined segment.
- The given sentence is in simple present tense, so we will use "**brings**".
- We use the pronoun "**it**" for animals.
- Thus, *option 1*) is the correct answer.

★ Additional Information

Let us understand the usage of pronouns for animals.

- Unless there is a personal relationship (like a pet that has a name), then it's acceptable to refer to the animal by "**he**" or "**she**."
- If it is not, then we refer an animal to as "**it**".
- This is also true while using "**who**" and "**whom**", we use "**who**" or "**whom**" if the person and the animal are personally connected.
- If not, we just use "**which**" or "**that**" in such case.
 - **For example:** Personal: *My dog, **whom** I call Bruno, is my best friend. **He** gives me comfort when I sit with **him**.*
 - Generic: *I found a stray dog wagging **its** own tail and **it** was shedding fur.*

60. Answer: c

Explanation:

The correct answer is "on".

★ Key Points

- In the given options, "on" is most appropriate option to fill in the blank.
- We always say depend/depending 'ON', never "of" or "in".
- The phrasal word "depends on" mean- 'to rely on somebody/something and be able to trust them'.
 - **Example:** *His selection **depends on** his interview.*
- Thus, *option 3*) is the correct alternative.

★ Additional Information

Let us understand the usage of depend on and depend upon

- The meaning of the prepositions "upon" and "on" is basically the same. But occasionally 'upon' is more formal than 'on,' and is preferable in the expressions.

61. Answer: d

Explanation:

The correct answer is "**Worsen an already bad situation**".

★ Key Points

- In the given options, "**Worsen an already bad situation**" is the most appropriate meaning of the given idiom.
- The meaning of the idiom "**Add fuel to the fire**" is to make a bad situation worse.
 - **Example:** He chose to **fuel the fire** rather than offer his girlfriend an apology.
- Thus, *option 4*) is the correct alternative.

★ Additional Information

Let us see some more idioms related to fire.

- **Have money to burn:** to spend a lot of money on things that are not necessary.
- **Get along like a house on fire:** become good friends very quickly.
- **A burnt child dreads the fire:** becomes more cautious about
- **Jump out of the frying pan and into fire:** to go from a bad situation to a situation that is even worse.

62. Answer: d

Explanation:

The correct answer is "on".

★ Key Points

- In the given options, "on" is the most appropriate option to fill in the blank.
- The correct phrase is "on social media" as the preposition "on" is typically used while discussing social media in English..
- Thus, *option 4)* is the correct alternative.

★ Additional Information

Let us see the other such notable use of "on".

- When anything is a part of the Internet, we say that it is "**on the Internet,**" not "in" or "at" the Internet.
 - **Example:** I found this poetry **on** the Internet.

63. Answer: c

Explanation:

The correct answer is "When they come of contact".

★ Key Points

- In the given options, "When they come of contact" has error in it.
- The phrase "come in contact with" is used in place of "come of contact".
- The phrase "come in contact with" means -to be in a place where you meet someone or experience something.
 - **Example:** Could she have *come in* contact with the disease at school?
- Thus, *option 3)* given is the correct alternative.

The correct Sentence: *Mylar balloons cause power outages when they come in contact with power lines.*

64. Answer: b

Explanation:

The correct answer is "Entitlement".

★ Key Points

- In the given options, "Entitlement" is the most appropriate option to fill in the blank.
- The word "Entitlement" is used to mean something that you have the official right to or the amount that you have the right to receive.
 - **Example:** Managers have generous leave **entitlement**.
- Thus, *Option 2)* is the correct alternative.

★ Additional Information

Let us understand the meaning of other options too.

- **Acknowledgement:** the act or fact of accepting the truth or recognizing the existence of something
 - **Example:** Her resignation was an acknowledgment of defeat.

- **Enforcement:** the action of getting others to follow a law or regulation, or to cause or accept a specific event.
 - **Example:** Voters are against the enforcement of immigration laws.

65. Answer: b

Explanation:

The correct answer is "**constitutionally**".

★ Key Points

- In the given options, "**constitutionally**" is the most appropriate word to fill in the blank.
- The word '**constitutionally**' means in a way that is in accordance with a political constitution.
 - **Example:** "basic constitutionally mandated rights".
- Thus, *option 2*) is the correct alternative.

★ Additional Information

Let us see the meaning of other options too.

- **Permeably:** Being permeable or being able to pass through, especially when referring to materials where liquids can pass through or through which they can be absorbed.
 - **Example:** Wood is oil-permeable.
- **Indigenously:** having its source, growth, or production in a specific location or region.
 - **Example:** Cotton is indigenously produced in India and exported to the foreign countries.
- **Unethically:** Something that is morally wrong.
 - **Example:** Companies are often tempted to act **unethically** in the way they procure sales.

66. Answer: d

Explanation:

Here the correct answer is **Captivate**.

★ Key Points

- The most appropriate synonym of the given word "Enthrall" is "Captivate".
- The word "Enthrall" means **to captivate or fascinate someone completely, to hold their attention or interest**. It can be used to describe something that is so captivating that it holds someone spellbound.
 - Example sentence: The concert enthralled the audience with its beautiful music and stunning visual effects.
 - Example sentence: The magician's performance was so **captivating** that the audience remained spellbound throughout the entire show.
- Therefore, "**captivate**" is the most appropriate synonym of the given word.
- Thus, the correct answer is **option 4**.

★ Additional Information

- The other words and their meanings are:
- **Deceive** - to trick or mislead someone, to make them believe something that is not true
 - Example sentence: He **deceived** his boss by pretending to be sick so that he could take the day off.
- **Repulse** - to reject or drive away someone or something, to cause disgust or aversion
 - Example sentence: The sight of the dead animals **repulsed** the visitors at the zoo.
- **Forgive** - to pardon someone for their mistakes or wrongdoings, to stop feeling anger or resentment towards them
 - Example sentence: She found it hard to **forgive** him for lying to her, but eventually, she did.

★ Important Points

- It is important to note that although these words may have some overlapping meanings, they are not interchangeable with "Enthrall" as they do not convey the same idea of captivating or fascinating someone.

67. Answer: b

Explanation:

The correct answer is "**Extrovert**".

★ Key Points

- In the given options, "**Extrovert**" is the most appropriate word for one-word substitution.
- We use the term "**Extrovert**" to refer to a person who is confident and full of life and who prefers being with other people to being alone.
- Thus, *option 2*) is the correct alternative.

★ Additional Information

Let us see the meaning of other options as well.

- **Psychic:** It used to describe a person or their mind possessing strange abilities that cannot be explained, such as the capacity to read the thoughts of others or predict the future.
- **Heroic:** It is used when describing people or actions having great bravery.
- **Flamboyant:** It is used for the people who are very confident in behavior, and liking to be noticed by other people.

68. Answer: b

Explanation:

The correct answer is "**Its always a**".

★ Key Points

- In the given options, "**Its always a**" part of the sentence has error.
- We use '**Its**' as a possessive form of pronoun that shows the possession of something.
- Thus, **option 2)** is the correct answer.

The Correct Answer: It's always a beautiful day in my neighbourhood.

★ Additional Information

Let us understand the difference between "It's" and "Its".

- "**Its**" is a possessive pronoun for nouns without a clear gender, similar to his or her. It is used without an apostrophe.
 - **Example:** The furniture store celebrated its tenth anniversary.
- **It's**, on the other hand, is the contraction of **it is** or **it has** and is denoted by an apostrophe.
 - **Example:** It's been great getting to know you.

69. Answer: d

Explanation:

The correct answer is "**will be ready**".

★ Key Points

- In the given options, "**will be ready**" will improve the underlined part of the sentence.
- The given sentence is in simple future tense hence, "**will be**" used.
- Thus, **option 4)** is the correct alternative.

The Correct Sentence: The toast will be ready in about 15 minutes.

Lets us understand the rules of Simple Future Tense.

★ Additional Information

- The structure for the simple future is **will + [root form of verb]**.
 - **Example:** I will learn a new language.
 - My brothers will sleep till noon if no one wakes them up.

Will	will be
'Will' is used as a modal verb to emphasize on actions/events that will take place in the future.	'Will be' is used to refer to actions that will be happening in the future, for which the specific time is unknown.
It is used as a helping verb to denote the simple future tense. The words, as such, is also used as a noun.	It is used as a helping verb to depict the future continuous tense.

70. Answer: d

Explanation:

The correct answer is "**Admittance**".

★ Key Points

- In the given options, "**Admittance**" is the most appropriate antonym of "**Exclusion**".
- We used the word "**Exclusion**" to mean -" to prevent or restrict the entrance of".
- While the meaning of "**Admittance**" is "being allowed to enter a place".
- Thus, *option 4*) is the correct alternative.

★ Additional Information

Let us understand the meaning of other options as well.

- **Discharge:** to send something out (a liquid, gas, etc.).

- **Example:** The **discharge** of water from the reservoirs caused flood in the village.
- **Commotion:** noisy confusion
 - **Example:** The death of the political leader caused a great **commotion** in the city.
- **Wreck:** to destroy or badly damage something
 - **Example:** The explosion **wrecked** one house and shattered nearby windows.

71. **Answer: b**

Explanation:

The correct answer is "**another**".

★ Key Points

- In the given options, "**another**" is the most appropriate option to fill in the blank.
- The word "**another**" is typically used with **singular non-specific countable nouns**, although it can also be used with plural nouns.
 - **Example:** I will move to **another** country next week.
- Here, country is a countable noun and we are not specifically talking about any particular country so it is not specific.
- Thus, **option 2)** is the correct alternative.

★ Additional Information

Let us know some more usage of another.

- It refers one more or additional:
 1. Singular non-specific Countable noun
Example: I have started reading **another** novel.
 2. Plural noun
Example: The sim card is valid for **another** five years.

72. Answer: a

Explanation:

The correct answer is "impact".

★ Key Points

- In the given options, "impact" is the most appropriate word to fill in the blank.
- We use the word "impact" to show the 'effect' or 'consequences' of a particular action.
- Here, in the given sentence, we are talking about the **effect or result** of noise pollution on health.
- Thus, *Option 1)* is the correct alternative.

The correct sentence: *It may have an impact on general health.*

73. Answer: c

Explanation:

The correct answer is "sources".

★ Key Points

- In the given options, "sources" is the most appropriate option to fill in the blank.
 - Sources means any thing or place from which something arises or originates.
 - In the above sentence, the various 'sources' by which the noise comes has been discussed.
 - Thus, *option 3)* is the correct alternative.
-

74. Answer: b

Explanation:

The correct answer is "exposure".

★ Key Points

- In the given options, "**exposure**" is the most appropriate option to fill in the the blanks.
- Exposure is used to refer to a state of being impacted by or going through something.
 - **Example:** High **exposure** to sun leads to sunburn.
- Here, we are taking about "**long-term exposure**" is nothing but the impact of being in the contact of pollution.
- Thus, **option 2)** is the correct alternative.

★ Additional Information

- **Closure:** The act or process of ending or being ended. In a personal context, it often refers to an individual's resolution or conclusion of an emotional or traumatic issue (समाप्ति)
 - Example Sentence: After the funeral, the family felt a sense of **closure**.
- **Safety:** The condition of being protected from or unlikely to cause danger, risk, or injury (सुरक्षा)
 - Example Sentence: Always wear a helmet for your **safety** while riding a bicycle.
- **Vicinity:** The area near or surrounding a particular place (आस-पास / निकटता)
 - Example Sentence: There are several hotels in the **vicinity** of the airport.

75. Answer: b

Explanation:

The correct answer is "cause".

★ Key Points

- In the given options, "**cause**" is the most appropriate option to fill in the blank.
- Here, in the given sentence 'cause' is used to refer to make something happen.
- Thus, *option 2*) is the correct alternative.

76. **Answer: a**

Explanation:

The correct answer is October and November.

★ Key Points

- Tamil Nadu is located on the eastern coast of India.
- South India usually receives rainfall from south west monsoons.
- But these south west monsoon arising from Arabian Sea gets obstructed by Western Ghats.
- Hence, Tamil Nadu receives most of its rain from north east and retreating monsoons during winter season.
- Moreover, many low pressure systems develop in the Bay of Bengal during this period and move towards the east coast of Tamil Nadu causing heavy rainfall.

Tamil Nadu receives rainfall from Northeast trade winds.

- From early June to mid-September, between 100- 120 days is the duration of the monsoon. Some places like Tamil Nadu receive a major portion of its rainfall during October and November, but most parts of the country receive rainfall from June to September.
- During the winter season, the winds prevailing in the country are the Northeast trade winds.
- In major parts of the country, it is a dry season, as the winds blow from land to sea.
- When the winds blow from sea to land, it picks up moisture from the sea and brings rainfall to the country.
- Due to the geographical location, the east coast receives rainfall as the north east trade winds blow from sea to land in this location. Hence the coast of Tamil Nadu receives winter rainfall.

★ Additional Information

Monsoon

- Generally, across the world, the monsoons are experienced in the tropical area roughly between 20° N and 20° S.
- The climate of India is described as the 'monsoon' type. In Asia, this type of climate is found mainly in the south and the southeast.
- Out of a total of 4 seasonal divisions of India, monsoon occupies 2 divisions, namely.
 - The southwest monsoon season - Rainfall received from the southwest monsoons is seasonal in character, and occurs between June and September.
 - The retreating monsoon season - The months of October and November are known for retreating monsoons.
- Factors Influencing South-West Monsoon Formation
 - The differential heating and cooling of land and water create a low pressure on the landmass of India while the seas around experience comparatively high pressure.
 - The shift of the position of Inter Tropical Convergence Zone (ITCZ) in summer, over the Ganga plain (this is the equatorial trough normally positioned about 5°N of the equator. It is also known as the monsoon-trough during the monsoon season).

77. Answer: d

Explanation:

The correct answer is receipts and expenditures of the government.

★ Key Points

- A budget is an estimation of revenue and expenses over a specified future period of time and is usually compiled and re-evaluated on a periodic basis.
- Budgets can be made for a person, a group of people, a business, a government, or just about anything else that makes and spends money.

- There is a constitutional necessity in India according to Article 112 to current before the Parliament passed a declaration statement of gauged receipts and expenditures of the government with respect of every financial year.
- The budget or Annual Financial Statement should separate revenue expenditure from the rest. Therefore the budget comprises of revenue budget and a capital budget.
- The financial year of India runs from 1 April to 31 March \

★ Additional Information

- There are two main elements of the Government Budget:
 - Budget receipts: It refers to the estimated receipts of the government from all the sources during a fiscal year. It is of two types: Capital Receipts, and Revenue Receipts.
 - Budget Expenditure: It refers to the estimated expenditure of the government on various developmental as well as non-developmental programs during a fiscal year. It is of two types: Capital Expenditure, and Revenue Expenditure.

78. Answer: b

Explanation:

The correct answer is A.T.P.

★ Key Points

- A.T.P. (Adenosine triphosphate) is the energy molecule for living plants and animals.
 - A.T.P. is the energy currency of cells.
 - All living organisms, from bacteria, fungi, spinach, and worms to crocodiles and humans, use ATP for energy conversion.
 - Originally, the energy comes from the sun.
 - Plants capture it during photosynthesis and convert it to chemical energy as ATP. Using this energy, plants produce carbohydrates, fats, and proteins that are eaten by animals and human beings.

- In metabolism, the food is broken down and the energy released is used to make ATP.
- Energy is interconverted between various forms. Compare this with the idea of different currencies, only one of which is accepted at a time. ATP is an energy currency.

★ Additional Information

- The full form of DNA is Deoxyribonucleic Acid.
- It is a hereditary material located in cell nucleus that carries the genetic instructions used in the growth, development, functioning and reproduction of all living organisms.

The full form of RNA is Ribonucleic Acid. There are 3 types of RNA, each encoded by its own type of gene:

- mRNA - Messenger RNA-Encodes amino acid sequence of a polypeptide.
- tRNA - Transfer RNA- Brings amino acids to ribosomes during translation.
- rRNA - Ribosomal RNA-With ribosomal proteins, makes up the ribosomes, the organelles that translate the mRNA.

79. **Answer: c**

Explanation:

The correct answer is Annelida.

★ Key Points

Earthworm:

- It is a terrestrial invertebrate belonging to the phylum Annelida.
- They are the common inhabitants of moist soil and feed on organic matter.
- Earthworms have a tube-like arrangement or cylindrical-shaped and reddish-brown segmented bodies.
- It respire through its skin and has a double transport system made of coelomic fluid.

★ Additional Information

- Unique features of different phyla-
 - Porifera- also known as sponges because they have pores.
 - Coelenterata- also known as cnidaria because they have cnidoblasts.
 - Ctenophora- also known as sea walnuts or comb jellies. And they have comb plates.
 - Platyhelminthes- also known as flatworms because they have a flat body.
 - Aschelminthes- also known as roundworms because the body has a circular cross-section.
 - Annelida- Body segmentation
 - Arthropoda- They have joint appendages.
 - Mollusca- Body covered with a calcareous shell.
 - Echinodermata- Water vascular system.
 - Hemichordata- The body is made up of proboscis, collar, and trunk.
 - Chordata- Notochord, a dorsal hollow nerve, and paired pharyngeal gill slits.

80. Answer: b

Explanation:

The correct answer is Harshaali Malhotra.

★ Key Points

- Harshaali Malhotra is an Indian child actress who is best known for her role as Munnii in the Bollywood film "Bajrangi Bhaijaan" (2015).
- She was born on June 3, 2008, in Mumbai, Maharashtra, India.
- Harshaali made her acting debut in 2013 with the TV serial "Qubool Hai" and then appeared in several commercials before landing her breakthrough role in "Bajrangi Bhaijaan" alongside Salman Khan.
- Her performance in the film was highly praised, and she won several awards for her role, including the Filmfare Award for Best Female Debut. Since then,

- Harshaali has appeared in a few other films, including "Nawabzaade" (2018) and "Sita" (2019), but is yet to have a major breakthrough role like her debut.
- She has received the prestigious Bharat Ratna Dr. Ambedkar Award 2021.

★ Additional Information

Bharat Ratna Dr Ambedkar Award

- The Bharat Ratna Dr. Ambedkar Award is an award given in India to recognize individuals or institutions that have made significant contributions to the promotion of social justice and equality.
- The award is named after Dr. Bhimrao Ramji Ambedkar, who was a prominent social reformer and the chief architect of the Indian Constitution.
- The award is presented annually by the Government of Maharashtra, the state where Dr. Ambedkar was born and where he played a key role in the social and political movements of his time.
- The award was first presented in 1990 and has been awarded every year since then, except for in 1993 and 2013.
- The award recognizes individuals or institutions from various fields, including social work, education, literature, journalism, and art and culture.
- Recipients of the award receive a cash prize, a citation, and a memento.

81. Answer: a

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Explanation:

The correct answer is coalition.

★ Key Points

- A coalition government is a type of government where two or more political parties join together in parliament/ assembly to run the government and agree on a policy program.
 - A coalition government is a cabinet of a parliamentary government in which several parties cooperate.

- The usual reason given for this arrangement is that no party on its own can achieve a majority in the parliament.
- A coalition government might also be created in a time of national difficulty or crisis, for example during wartime, to give a government the high degree of perceived political legitimacy it desires and also playing a role in diminishing internal political strife.
- In such times, parties have formed all-party coalitions (national unity governments, grand coalitions).
- If a coalition collapses a confidence vote is held or a motion of no confidence is taken.
- A coalition government is oftentimes considered a very weak form of government because there is no majority party.

★ Additional Information

- **Appropriation**
 - Appropriation Bill gives power to the government to withdraw funds from the Consolidated Fund of India for meeting the expenditure during the financial year.
 - It is introduced by Finance Minister.
 - It is introduced in Lok Sabha.
 - It gives the legal power to the Govt. for expenditure.
- **prorogation**
 - Prorogation is the action of discontinuing a session of the House without dissolving it.
 - Once the Business of the Session is completed, The Presiding officer declares the House adjourned sine die, Then within a few days, the President issues a notification for Prorogation of the Session.
 - The President can Prorogue the House while it is in session.
 - It terminates both, the sitting of the house and the session of the house.

82. Answer: b

Explanation:

The correct answer is right to property.

★ Key Points

• Right to property

- Right to Property is not a fundamental right under the Indian Constitution.
- Supreme Court has stated that forcible dispossession of a person's property a human right violation.
- SC stated that the right to property is both a human right and a constitutional right - the latter under Article 300A of the Constitution.
- The court noted, "some amount of property right is an indispensable safeguard against tyranny and economic oppression of the government."
- Article 300A states that - No person shall be deprived of his property save by the authority of law.
- The 44th constitutional amendment act, 1978 inserts article 300-A.
- Before this amendment, the right to property was the fundamental right, enshrined in article 19 (1) (f) & 31 of the Constitution.
- After the 44th amendment, article 300-A only prohibits the deprivation of the right to property by the mere executive order unless that order is made or authorised by some law enacted by the legislature.

★ Additional Information

- Six fundamental rights Under Indian Constitution:
 - Right to Equality (Article 14-18)
 - Right to Freedom (Article 19-22)
 - Right against Exploitation (Article 23-24)
 - Right to Freedom of Religion (Article 25-28)
 - Cultural and Educational Rights (Article 29-30)
 - Right to Constitutional Remedies (Article 32)

83. Answer: a

Explanation:

The correct answer is Surat.

★ Key Points

- Mughal Emperor Jahangir permitted the English East India Company to establish their factory in 1613 at Surat.
- The British East India Company came to India for trade in spices, an important commodity in Europe back then, and as it was used to preserve meat.
- Apart from this, they primarily do trading in silk, cotton, indigo dye, tea, and opium.
- Mughal emperor Jahangir granted a Farman to Captain William Hawkins permitting the English to erect a factory at Surat in 1613.
- In 1615, Thomas Roe, the Ambassador to James I, got an imperial Farman from Jahangir for trading and establishing factories all across the Mughal empire.
- In 1616, the company established its first factory in the south in Masulipattanam.
- Soon, the Vijayanagara Empire will also give the company permission to open a factory in Madras and the British company started to eclipse the other European trading companies in their rising power.
- The 'East India Company' was formed in 1600.

★ Additional Information

- Jahangir was born to Maryam-uz-Zamani and Akbar on August 30, 1569.
- He was named Sultan Muhammad Salim after Shaikh Salim Chishti of Fatehpur Sikri.
- Akbar called him Sheik Babu.
- After his coronation, he assumed the title of Nur-ud-din Muhammad Jahangir Badshah Ghazi.
- Jahangir was the only surviving son of Akbar who after his father's death ascended the throne in 1604, at the age of 34 years.

84. Answer: b

Explanation:

The correct answer is Lucknow Super Giants.

★ Key Points

- The Indian Premier League (IPL) 2022 ended with Gujarat Titans (GT) lifting the trophy by defeating inaugural champions Rajasthan Royals (RR) at the Narendra Modi Stadium, Ahmedabad.
- The Indian Premier League (IPL) 2022, was the 15th edition of the professional Twenty20 cricket league established by the Board of Control for Cricket in India (BCCI).
- The host country for IPI 2022 was India.
- The Orange Cap title winner is Jos Butler (Rajasthan Royals) with Total runs: 863 runs.
- The Purple Cap title winner is Yuzvendra Chahal (Rajasthan Royals) with total 27 Wickets.
- IPL 2022 Sponsorer was TATA.

85. Answer: b

Explanation:

The correct answer is Nirmala Sitharaman.

★ Key Points

- Tejasvini scheme
 - For girls, Nirmala Sitharaman has introduced two J&K Bank programmes called "Tejasvini & Hausala Schemes."
 - As part of the credit score outreach initiative in Jammu, Tejaswini Scheme was introduced.
 - The scheme's objective is to provide younger women with financial assistance of up to Rs 5 lakh.
 - The financial assistance is for creating profitable self-employment companies that are appropriate for their skills, aptitude, and local circumstances.
 - Tejasvini scheme focuses on providing financial assistance of Rs. 5 lakh to women between the ages of 18 and 35 so they can start their own

business.

★ Additional Information

- 'Hausla Scheme'
 - It was launched under J&K Trade Promotion Organisation.
 - It aims to empower, motivate existing women entrepreneurs so that they will become role models in their respective sectors.
 - The scheme will offer skill development, credit support, marketing support, and mentorship guidance.
- 'Shikhar & Shikara Schemes'
 - The Shikhar scheme focus on meeting credit requirements up to Rs. 2 crores for the hotel, tour & tourism industry.
 - The Shikhara scheme aims to offer credit support to purchase shikara, restore and maintain shikara and houseboats.
 - For this, the collateral-free term loans with repayment option of EMI in 7 years will be granted.
 - The Shikhara scheme will offer credit support up to Rs. 15 lakh to purchase or repair Shikaras.

86. Answer: a

Explanation:

The correct answer is Himachal Pradesh.

★ Key Points

- Nati is a popular folk dance in India.
- It is performed in the state of Himachal Pradesh.
- The dance is usually performed during celebrations and festivals.
- Both men and women participate in the dance.
- Traditional musical instruments like dhol, nagara, and shehnai are used in Nati.
- Nati is known for its lively movements and colourful attire worn by the performers.

★ Additional Information

State	Folk Dance	Description
Bihar	Jat-Jatin	<ul style="list-style-type: none"> • A dance form that originated from the Bhojpur region, performed by men and women in pairs, accompanied by traditional instruments such as the dhol, manjira, and jhanj. • The dance depicts themes of love, joy, and celebration.
Kerala	Kathakali	<ul style="list-style-type: none"> • A classical dance-drama form that originated in Kerala, known for its elaborate makeup, costumes, and facial expressions. • The performances typically depict mythological stories from Hindu epics.
Nagaland	Naga Warrior Dance	<ul style="list-style-type: none"> • A traditional dance performed by men, characterized by the use of spears and shields, accompanied by the beating of drums and gongs. • The dance is performed to showcase the warrior skills and bravery of the Naga tribes.

87. Answer: c

Explanation:

The correct answer is first.

★ Key Points

- According to the Census of **India 2011**, among all the states/UTs, Kerala occupied the first position in terms of literacy with a literacy rate of **96.2%**.
- The sex ratio describes the number of females per 1000 males.
- The state of Haryana has the lowest sex ratio in India with a figure of 879 females to that of 1000 of males.
- Whereas, Kerala has the highest sex ratio in India with the figure of 1084 females to that 1000 males.
- The Sex Ratio 2011 shows an upward trend from the census of 2001 data which revealed that there were 933 females to that 1000 males.
- The sex ratio in the union territories, Puducherry has the highest sex ratio of 1037 while Daman and Diu have the lowest sex ratio of 618 among all the union territories of India.

★ Additional Information

- The first ever CENUS in India was conducted by Lord Mayo.
- MWM Yeatts was the first Register General & Census Commissioner of Independent India(1951).
- RA Gopaldaswami was the first Indian Register General & Census Commissioner of India.
- C. Chandra Mauli was the Register General & Census Commissioner of 15th CENSUS(2011).
- Vivek Joshi was the Register General & Census Commissioner of the 16th CENSUS(2021).
- Women to Men Ratio Highest in District – Mahe
- Female to Male Child Sex Ratio – 914:1000

88. Answer: b

Explanation:

The correct answer is Chandragupta.

★ Key Points

- Megasthenes

- Greek historian, diplomat, and explorer Megasthenes lived in the Hellenistic era (350–290 B.C.).
- Megasthenes has been sent as an ambassador to Chandragupta Maurya's court by Seleucus I Nicator, the Greek conqueror of West Asia.
- India is described in the book "Indica" by Megasthenes.
- The term "father of Indian history" refers to Megasthenes because he was the first to depict ancient India.
- The two main rivers Sindhu and Ganga are also described by him.
- The Mauryan capital Pataliputra was visited by Megasthenes.
- He gives a thorough description of the rivers of the Punjab region in northwest India.

★ Additional Information

- Chandragupta Maurya
 - Chandragupta Maurya became king when he was 25 years old.
 - He defeated the Nandas and established the Mauryan Empire.
 - In 322 BC, he defeated the final Nanda emperor Dhanananda and took control of Pataliputra.
 - A wise man by the name of Chanakya/Kautilya supported Chandragupta Maurya.
 - Seleucus Nicator was defeated by Chandragupta Maurya in 305 BC.
 - During Chandragupta Maurya's rule, all of northern India was united.

89. Answer: c

Explanation:

The correct answer is Jyotirao Phule.

★ Key Points

- Jyotiba Phule was born to a Mali family in Satara (Maharashtra).
- He fought against the Upper Caste domination.
- He also founded Satya Shodhak Samaj.
- His works like Gulamgiri and Sarvajanic Satyadharma became famous.

- He educated his wife at home, he faced criticism from society for educating his wife.
- His wife Savitri Bai Phule started the first girls school in Poona, which was the first of its kind started by an Indian.
- Jyotiba Phule also worked for the betterment of widows, and women.
- Savitri Bai Phule worked for the widow remarriage and education of women in society.

★ Additional Information

- **Ishwar Chandra Vidyasagar:**
 - "Barna Parichay" (Introduction to the Alphabet)
 - "Bidhaba Bibaha Bishayak Prostab" (Introduction to Widow Marriage)
 - "Sitar Vanavas" (Exile of Sita)
- **Narayana Guru:**
 - "Jati Mimamsa" (Reflections on Caste)
 - "Atmopadesa Satakam" (One Hundred Verses of Self-Instruction)
 - "Daiva Dasakam" (Ten Verses to God)
- **Ghasidas:**
 - "Guru Geet" (Songs of the Guru)
 - "Avdoot Bhagwad" (Story of an Avadhoot)
 - "Jan Pad Sawal-Jawab" (Questions and Answers of Jan Pad)

Your Personal Exams Guide

90. Answer: c

Explanation:

The correct answer is Bharatanatyam and Kathakali.

★ Key Points

- Mrinalini Vikram Sarabhai
 - Indian classical dancer and choreographer Mrinalini Vikram Sarabhai were well-known worldwide.
 - In the city of Ahmedabad, she was the founder and director of the Darpana Academy of Performing Arts, a school for teaching dance,

theatre, music, and puppetry.

- She was honoured with numerous honours and citations for her contributions to Kathakali and Bharatnatyam.
- The Indian government presented Mrinalini Sarabhai with the Padma Shri Award in 1965 and the Padma Bhushan National Civil Award in 1992.
- In 1990, she was nominated for the Executive Committee of the International Dance Council in Paris, and in 1994, the Sangeet Natak Akademi Fellowship was given to her in New Delhi.
- Mrinalini Vikram Sarabhai, the **Bharatanatyam and Kathakali legend** has not received Padma Vibhushan.

★ Additional Information



Your Personal Exams Guide

Dance Form	Dancer Name	Notable Achievements
Bharatanatyam	Balasaraswati	Awarded the Padma Bhushan and Padma Vibhushan, two of India's highest civilian honours, for her contributions to the art form.
Bharatanatyam	Yamini Krishnamurthy	A renowned classical dancer who has also performed in films and received numerous awards, including the Padma Bhushan and Padma Shri.
Kathak	Birju Maharaj	An internationally acclaimed dancer and choreographer who has received several prestigious awards, including the Padma Vibhushan and the Sangeet Natak Akademi Award.
Kathak	Shovana Narayan	A Padma Shri and Padma Bhushan awardee, who is known for her innovative choreography and collaborations with international artists.
Kathakali	Padma Shri Kalamandalam Gopi	One of the foremost exponents of Kathakali, he has won several awards including the Padma Shri and the Sangeet Natak Akademi Award.
Kathakali	Kottakkal Sivaraman	A Padma Shri and Padma Bhushan awardee, known for his portrayal of female characters in Kathakali.
Odissi	Sanjukta Panigrahi	A pioneer of Odissi, who was awarded the Padma Shri, Padma Bhushan, and Sangeet Natak Akademi Award for her contributions to the art form.

Dance Form	Dancer Name	Notable Achievements
Odissi	Kelucharan Mohapatra	A Padma Vibhushan and Sangeet Natak Akademi Award winner, known for his mastery of the Odissi dance style and his contributions to its revival.

91. Answer: c

Explanation:

The correct answer is Option 3.

★ Key Points

- The National Sample Survey Office (NSSO), under the Ministry of Statistics and Programme Implementation, is responsible for collecting and publishing data related to employment and unemployment in India.
- The NSSO conducts large-scale surveys, including the Annual Employment-Unemployment Survey (EUS) and the Periodic Labour Force Survey (PLFS), to collect data on various aspects of employment and unemployment in the country.

★ Additional Information

- NITI Aayog aims to provide strategic and technical advice to the central and state governments of India on various policy matters. It also serves as a platform for cooperative federalism by fostering the involvement of state governments in the policy-making process.
 - The main objective of NITI Aayog is to promote sustainable and balanced economic growth, enhance the competitiveness of India's economy, and improve the quality of life for all citizens.
 - The organization has been instrumental in formulating policies and programs such as the Atal Innovation Mission, Digital India, Swachh Bharat Abhiyan, and the National Health Stack.
- The Securities and Exchange Board of India (SEBI) is the regulatory body responsible for overseeing and regulating the securities market in India.
 - It was established on April 12, 1988, and is headquartered in Mumbai, India.

- **The Planning Commission** was a central agency in India responsible for formulating **five-year plans** and other development policies at the national level.
 - It was established in 1950 and functioned as a think-tank for the government, providing guidance and advice on matters related to economic and social development.

92. Answer: a

Explanation:

The correct answer is Option 1.

★ Key Points

- In Mendeleev's periodic table, hydrogen was given a unique position outside the main group elements, because its properties did not fit well into any of the groups.
- Therefore, it was not assigned an atomic number in Mendeleev's original periodic table. However, in the **modern periodic table**, hydrogen is placed in **Group 1** (the alkali metals) and has an atomic number of 1.

★ Additional Information

- The element with atomic number 11 is **sodium (Na)**. Sodium has 11 protons in its nucleus, which gives it an atomic number of 11.
 - The number of **protons in an atom's nucleus** determines its atomic number and the identity of the element.
 - **Sodium** is a soft, silvery-white metal that is highly reactive and has a low melting point. It is a member of the alkali metal group of elements and is located in the third row of the periodic table.
 - **Sodium** has only one valence electron, which makes it highly reactive and easily forms compounds with other elements, particularly with chlorine to form common table salt (sodium chloride).
- **The atomic number** of an element is the number of protons in the nucleus of an atom of that element. Since **Boron has 5 protons in its nucleus**, its atomic

number is 5.

- **Boron is a metalloid**, which means that it has properties of both metals and non-metals.
- It is a relatively rare element in the **Earth's crust**, and is often found in combination with other elements, such as **oxygen and hydrogen**.
- **Boron** has a variety of applications in industry and technology, including its use in the production of glass and ceramics, as a component of **neodymium magnets**, and as a doping agent in semiconductors. It is also an important nutrient for plants and is commonly used as a **fertilizer**.
- **The element with atomic number 15** is phosphorus (P). It has 15 protons in its nucleus, which gives it an atomic number of 15.
 - **Phosphorus is a non-metal** and is located in the third row (period) of the periodic table.
 - **Phosphorus** is unique in that it has multiple allotropes, which means it can exist in different forms with varying physical and chemical properties. The most common form of **phosphorus is a white, waxy solid that is highly reactive and flammable**. However, it can also exist in red, black, and several other forms.

93. Answer: d

Explanation:

The correct answer is Option 4.

★ Key Points

- **The Agra Fort** was built by the **Mughal emperor Akbar in the mid-16th century**.
- He began construction of the fort in **1565**, and it was completed in **1573**. Later Mughal emperors, such as **Jahangir and Shah Jahan**, made additions and modifications to the fort.
- He was the **third emperor** of the **Mughal dynasty**, succeeding his father **Humayun**. **Akbar** is considered to be one of the greatest emperors in Indian history, known for his administrative **skills, religious tolerance**, and **military conquests**. During his reign, Akbar expanded the **Mughal Empire** to include

much of the Indian subcontinent, and he is credited with creating a centralized and efficient administrative system. **Akbar** was also known for his efforts to promote **religious harmony and tolerance**, and he was respected by people of all **faiths, including Hindus, Muslims, Christians, and Jains**.

★ Additional Information

- **Babur** was a **16th-century emperor and founder of the Mughal dynasty in India**. During his reign, he built many structures, including gardens, palaces, and mosques.
 - One of the most famous structures built by Babur is the **Babri Masjid**, a mosque located in the city of Ayodhya in present-day **Uttar Pradesh, India**. It was built in the 16th century during Babur's reign, but it has been a source of controversy and conflict between Hindus and Muslims for several decades.
- **Shah Jahan** was a **Mughal emperor** who ruled over India from **1628 to 1658**. He is known for building many magnificent structures, the most famous of which is the Taj Mahal.
 - **The Taj Mahal** is a white marble mausoleum located in Agra, India, and it was built by **Shah Jahan** in memory of his beloved wife **Mumtaz Mahal**, who died in **1631**. The construction of the Taj Mahal began in **1632** and was completed in **1653**. The **Taj Mahal** is considered to be one of the most beautiful and iconic buildings in the world and is recognized as a **UNESCO World Heritage Site**.
 - Apart from the **Taj Mahal**, **Shah Jahan** also built many other impressive structures, including the **Red Fort in Delhi**, the **Jama Masjid in Delhi**, and the **Moti Masjid in Agra**. He was a great patron of the arts and under his rule, **Mughal architecture** reached new heights of excellence.
- **Jahangir** was the **fourth Mughal Emperor who ruled from 1605 to 1627** in the Indian subcontinent. During his reign, he oversaw the construction of several magnificent structures, some of which still stand today as important historical landmarks.
 - Some of the notable buildings and structures built during Jahangir's reign include: **Jahangir's Tomb**: This tomb is located in **Lahore, Pakistan** and was built by Jahangir's son, **Shah Jahan**, in honor of his father.

94. Answer: d

Explanation:

The correct answer is Option 4.

★ Key Points

- **Solung Festival** is a harvest festival celebrated by the Adi tribe in the Indian state of **Arunachal Pradesh**. The festival usually falls in the **first week of September and is celebrated for five to ten days**.
- During the **Solung festival**, people offer prayers to the gods and goddesses of the Adi pantheon for a good harvest, prosperity, and well-being. They also offer **sacrifices of animals, mostly of Mithuns (a type of bovine found in the Northeastern region of India), and feast on the meat**.
- The festival also involves traditional dances, music, and sports competitions such as archery and wrestling. The Adi women wear their traditional dress, the **"Gale," and adorn themselves with beads, shells, and coins**.
- The **Solung festival** is an essential event for the Adi tribe, and it provides an opportunity for them to come together and celebrate their culture and heritage.

★ Additional Information

- **Pongal** is a popular harvest festival that is celebrated in the southern Indian state of **Tamil Nadu**.
 - The festival is dedicated to the **sun god, Surya**, and is typically observed in the month of **January**. It is a four-day festival that is marked by several rituals and traditions.
- **Ugadi** is a festival celebrated in the Indian states of **Andhra Pradesh, Telangana, and Karnataka**. It marks the beginning of the New Year as per the Hindu calendar, which typically falls in **March or April**.
 - On this day, people **wake up early, take a ritualistic oil bath, and wear new clothes**. The day is marked by the preparation of a special dish called "Ugadi Pachadi," which is made by combining six different tastes - sweet, sour, salty, bitter, tangy, and spicy. This is believed to symbolize the

different experiences that one might encounter in life and teaches one to face them with equanimity.

- **Wangala**, also known as the **Hundred Drums Festival**, is a harvest festival celebrated by the Garo people, an indigenous community mainly residing in Meghalaya, a northeastern state of India, as well as parts of Bangladesh and Assam.
 - **During the festival**, men and women dress in traditional Garo clothing, which includes colorful striped cloth draped around the body and a headdress made of feathers or animal horns. They dance to the beat of the drums, and there are also other cultural events like wrestling matches, archery competitions, and traditional songs and dances.

95. Answer: d

Explanation:

The correct answer is Option 4.

★ Key Points

- **Hyderabad FC** won the Premier title in **2022** after a thrilling 3-1 victory over Kerala Blasters FC at the Pandit **Jawaharlal Nehru Stadium in Fatorda, Goa**.

★ Additional Information

- **ATK Mohun Bagan FC** is a professional football club based in Kolkata, India.
 - The club was formed in **2020** following a merger between two Indian Super League (ISL) teams - **ATK and Mohun Bagan AC**.
- **Kerala Blasters FC** is an Indian professional football club based in the city of **Kochi, Kerala**. The club was founded in **2014** and plays in the Indian Super League (ISL), which is one of the top professional football leagues in India.
 - The team is owned by former Indian cricketer **Sachin Tendulkar**, along with several other investors. The club's home ground is the **Jawaharlal Nehru Stadium in Kochi**, which has a seating capacity of 60,000 spectators.

- **Mumbai City FC** is a professional football club based in Mumbai, Maharashtra, India.
 - The club was founded in **2014** and competes in the Indian Super League, which is the top tier of professional football in India.
 - **Mumbai City FC** is owned by City Football Group, which is a global football organization that owns several football clubs around the world, including Manchester City FC.

96. Answer: a

Explanation:

The correct answer is Godavari.

Godavari

★ Key Points:

- It rises from Trimbakeshwar in the Nashik district of Maharashtra.
- It is also known as the Ganga of South India.
- It is the second-longest river in India.
- It is the largest peninsular river.
- Its length is about 1500 km.
- Due to its length and the area it covers, it is also known as the 'Dakshin Ganga'.
- Flows through the states of Maharashtra, Chhattisgarh, Telangana, and Andhra Pradesh.
- Purna, Pranhita, Indravati, and Sabari rivers are major left-bank tributaries.
- Pravara, Manjira, and Manair rivers are major right bank tributaries.

★ Important Points:

Narmada

- The Source of the Narmada is Narmada Kund which is located at Amarkantak in Anuppur District, Madhya Pradesh.
- The Narmada is also known as the Rewa.

- It is one of the major rivers in India that run from east to west along with Tapti and the Mahi.
- It flows through the states of Madhya Pradesh (1,077 km), Maharashtra (74 km), and in Gujarat (161 km).
- It is the longest river of Madhya Pradesh, followed by the Tapti

Mahanadi

- The river originates in the northern foothills of Dandakaranya, Raipur District of Chhattisgarh.
- The river is one of the major rivers of the peninsular rivers, in water potential and flood-producing capacity.
- Left bank Tributaries of the Mahanadi river are The Seonath, the Hasdeo, the Mand, and the Ib.
- Right bank Tributaries of the Mahanadi river are The Ong, the Tel, and the Jonk.

Krishna

- It is an east-flowing river that originates in Mahabaleshwar, Maharashtra.
- It flows from Maharashtra, Karnataka, Telangana, and Andhra Pradesh.
- It is the fourth largest river in India after Ganga, Godavari, and Brahmaputra.
- Left bank tributaries of Krishna are Bhima, Dindi, Paleru, and Musi.
- Whereas its right bank tributaries are Koyana, Panchganga, Dudhganga, Venna, Malprabha, Ghatprabha and Tungabhadra.

Sutlej:

- The river Sutlej, on which the Bhakra Dam has been built, originates from Rakas lake in Tibet.
- Sutlej River is the longest of the five rivers that flow through the historic crossroads region of Punjab in northern India and Pakistan.
- The Sutlej River is also known as Satadree.
- It is the easternmost tributary of the Indus River.
- The Bhakra Dam is built around the river Sutlej to provide irrigation and other facilities to the states of Punjab, Rajasthan, and Haryana.

Source of some other important Rivers of India:

- Brahmaputra - Kailash Mountain
- Indus River - Kailash Mountain
- Jhelum - Sheshnag Lake (Jammu and Kashmir)
- Chenab - Bara-la-cha Pass
- Ganga - Gangotri
- Narmada - Maikal Hills
- Son - Maikal Hills

97. Answer: c

Explanation:

The correct answer is 'Six'

★ Key Points:

- The roads are classified into six types: National Highways, State Highways, District roads, Rural roads, Border Roads, and Expressways.
- National Highways are the roads that connect one state with another and also connect important ports. These roads are constructed and laid by the Central Public Works Department (CPWD). They are designated with NH.
- State Highways are highways connecting major cities all over the state, it also connects other state highways of neighbouring states. It is designated by SH. State governments have the authority to build and maintain highways. Constructed and maintained by Public Work Departments of state.
- District roads are the roads where the districts are connected to each other. Other than a district, Zila Parishads also have the authority and responsibility to build roads.
- Rural roads are single-lane roads used to connect India's rural and remote areas. The roads are constructed and laid by Panchayats or by the project of Pradhan Mantri Gramin Sadak Yojna (PMGSY)
- Border roads are the roads constructed on the North and North Eastern borders of the country, constructed and maintained by the Border Roads Organization (BRO).

- Expressways are high-speed roads that are four or more lanes that have been designed for high-speed vehicular traffic, with all traffic flow regulated with toll roads. National Expressways Authority of India operates under the Ministry of Road Transport and Highways.

★ Additional Information:

- The minister for the Ministry of Road Transport and Highways is Nitin Gadkari.
- Pradhan Mantri Gramin Sadak Yojna (PMGSY) was launched in December 2000, by the Indian Government to provide connectivity to isolated rural habitations.
- Border Road Organisation was set up in 1960 by the Government of India, it is regarded as the symbol of nation building, national integration and maintaining the security of the country.

98. Answer: a

Explanation:

The book 'A Suitable Boy' has been written by Vikram Seth.

★ Key Points:

- A Suitable Boy is a 1993 novel by Vikram Seth.
- These are the longest novels ever published in a single volume in the English language.
- Within a new post-independence post-partition India, a suitable boy is set up.
- Vikram Seth is a writer and poet from India.
- He has been awarded several prizes including Pravasi Bharatiya Samman, Padma Shri, Sahitya Academy Award, WH Smith Literary Award and Crossword Book Award.

★ Additional Information

- Arundhati Roy is an Indian novelist and political activist.
- She is best known for her first novel The God of Small Things which won the Man Booker Prize for Fiction.

- This is Arundhati Roy's debut novel, filled with her Childhood memories.
- The novel tells the story of twins Rahel and Estha and their tragic childhood and adult experiences with the Indian caste system, Marxism, love, and death
- She was also awarded Sydney Peace Prize in 2004

Khushwant Singh:

- Truth, Love & A Little Malice is an autobiography of the Indian novelist Khushwant Singh.
- Indian author, lawyer, diplomat, journalist, and politician.
- He experienced the Partition of India, in 1947, which inspired him to write Train to Pakistan in 1956 (his most well-known novel).
- In 1974, he was honored with the Padma Bhushan by India's President.
- In 2007, Khushwant Singh was awarded the Padma Vibhushan.
- Last Book: The Sunset Club.

Devdutt Pattanaik:

- The author of the book 'Myth = Mithya: Decoding Hindu Mythology' is Devdutt Pattanaik.
- Myth = Mithya: A Handbook Of Hindu Mythology is a guide to unraveling and understanding the many myths and legends and the symbolism of the Hindu religion.
- The book explains concepts like the Pitr, Jiva, Devas and the Asuras.

99. Answer: a

Explanation:

The correct answer is Flute.

★ Key Points:

- Hariprasad Chaurasia was born on 1 July 1938. He is an Indian music director and classical flautist, who plays the Bansuri in the Hindustani classical

tradition.

- He was born in Prayagraj, Uttar Pradesh.
- The 2013 documentary film *Bansuri Guru* features the life and legacy of Chaurasia.
- He won Gansamradni Lata Mangeshkar Award - 2021-22, Padma Bhushan (1992), Padma Vibhushan (2000) etc.
- Official Biography 'Breath of Gold' by Sathya Saran- 2019 and 'Bansuri Samrat: Hariprasad Chaurasia' by Surjit Singh are some of the biographies of Chaurasia.

★ **Additional Information:**

- Some major albums released by Hariprasad Chaurasia:
 - Pt. Hariprasad Chaurasia - Flute, 1981.
 - Morning to Midnight Ragas - Morning Ragas, 1987.
 - Call of the Valley, 1988.
 - Flute Deity Hariprasad Chaurasia and Sounds of Silence, 2003.
 - Ajanma - Hariprasad Chaurasia, 2015.

100. Answer: d

Explanation:

The correct answer is 1915.

★ **Key Points**

- Mahatma Gandhi returned to India from South Africa in 1915.
- After returning, Gandhi travelled the lengths of the country to understand the people better and also became a part of local Satyagrahas.
- Gandhi returned to India from South Africa in 1915 at the request of Gopal Krishna Gokhale.
- Gandhi Ji's return from South Africa can be seen as perfect timing for the future development of the Indian national movement.
- Gokhale helped Gandhiji at the time of hardships in raising funds when Gandhiji was in South Africa.

- Gokhale insisted to Gandhiji that he has been far away from his nation. He wanted Gandhiji to come to India and know the situation of India under British Rule.
- 9th January was chosen as the day to celebrate Pravasi Bharatiya Divas since it was on this day in 1915 that Mahatma Gandhi, the greatest Pravasi, returned to India from South Africa, led India's freedom struggle and changed the lives of Indians forever.
- This day came into effect in 2003, but in 2015 it was revised and was decided to be celebrated every two years.
- It was then a theme-based conference that was set up every year during the interim period.
- This day plays a significant role as the overseas Indian community gets a shared platform to get themselves engaged with the government and the native people of the land.

Important movements by Mahatma Gandhi:

- Champaran Movement (1917)
- Kheda Movement (1918)
- Khilafat Movement (1919)
- Non-Cooperation Movement (1920)
- Civil Disobedience Movement: Dandi March (1930)
- Quit India Movement (1942)